

TEACHERS' ATTITUDES TOWARDS IMPLEMENTATION OF THE UPGRADED  
CURRICULUM IN A SECONDARY SCHOOL IN AKTAU

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Date:

**Teachers' Attitudes towards Implementation of the Upgraded Curriculum in a  
Secondary School in Aktau, City of Mangystau Province, Kazakhstan**

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Submitted in partial fulfilment of the requirements for the degree of

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in Educational Leadership

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Q48. The informed consent form is provided to the participants in the language understandable to them.

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☐ Disagree

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### **Abstract**

Currently, the educational system of Kazakhstan is undergoing the significant reforms related to the secondary school curriculum as the previous one inherited from the Soviet times was criticized for being ineffective in allowing students to develop the twenty-first-century skills. This issue was revealed during the research on secondary education conducted by the Organization for Economic Cooperation and Development (OECD) in 2014. To address the problem, the OECD team recommended reviewing the content of the school curriculum. The given recommendation has been realized in the form of the upgraded curriculum, the implementation of which started in the 2016-2017 academic year.

The study aimed to explore teachers' perceptions of implementing the upgraded curriculum in one of the mainstream schools of Aktau, to identify their attitudes towards new reform. It was also focused on the factors supporting and impeding the implementation of new curriculum. Mixed methods design was used to provide an in-depth exploration of teachers' attitudes. This approach first identified to what extent were teachers satisfied with new practices, and then explained their answers in more detail through the qualitative data from selected participants. Participants with different backgrounds regard the issue from different perspectives.

The findings of the quantitative part show that most teachers have positive beliefs about new reform; only a few statements demonstrated negative attitudes of teachers towards assessment. These answers were examined more deeply in the qualitative part of the study, which found that more experienced teachers are less satisfied with the changes in the content and pedagogy while less experienced teachers see only opportunities in the upgraded program. However, the obstacles caused by inadequate educational resources, diversity and the big number of students, poor parental involvement, memories and pressure from the top constrain their enthusiasm to implement the new changes.

*Keywords: upgraded curriculum, curriculum reform, teachers' attitudes.*



**Отношение учителей к внедрению обновленного содержания образования в  
средней школе Актау**

**Аннотация**

Система образования Казахстана претерпевает значительные реформы, связанные с системой средних школ. В частности, учебная программа для средней школы, так как и предыдущая, унаследованная от советских времен, подверглась критике за неэффективность в развитии навыков XXI века у учащихся. Эта проблема была описана в исследовании среднего образования, проведенном Организацией Экономического Сотрудничества и Развития (ОЭСР) в 2014 году. Для решения этой проблемы команда ОЭСР рекомендовала пересмотреть содержание школьной программы. Данная рекомендация была реализована в виде реформы обновленного содержания образования, внедрение которой началась в 2016-2017 учебном году.

Целью исследования было изучение взглядов учителей о внедрении обновленного содержания образования в одной из общеобразовательных школ Актау, чтобы выявить их отношение к новой реформе. Исследование также было сосредоточено на факторах, влияющих на восприятие учителями обновленной учебной программы. Смешанные методы исследования были использованы для обеспечения глубокого изучения взглядов и восприятия учителей. Этот подход сначала определил, насколько учителя были удовлетворены новыми практиками, а затем объяснил ответы отобранных участников более подробно с помощью качественных данных. Участники с разными характеристиками позволили взглянуть на проблему с разных точек зрения.

Результаты количественной части показывают, что большинство учителей имеют позитивные убеждения относительно новой реформы; только несколько заявлений продемонстрировали негативное отношение учителей к системе оценивания. Эти ответы были более глубоко изучены в качественной части исследования, которая показала, что более опытные учителя менее удовлетворены изменениями в содержании учебной программы и педагогике, в то время как менее опытные учителя видят только возможности в обновленной программе. Тем не менее, препятствия, вызванные недостатком образовательных ресурсов, разнообразием и большим количеством учеников, слабой вовлеченностью родителей, воспоминаниями о старой системе и давлением сверху, ограничивают энтузиазм учителей по поводу внедрения новых изменений.

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*Ключевые слова: обновленное содержание образования, реформа учебной программы, отношение учителей.*

**Ақтаудағы орта мектеп мұғалімдерінің жаңартылған оқу бағдарламасының  
енгізілуіне көзқарасы**

**Андатпа**

Қазақстанның білім беру жүйесі орта мектептердің оқу бағдарламасына қатысты елеулі реформаларды бастан өткеріп келеді. Атап айтқанда, Кеңес дәуірінен мұра болып қалған оқу бағдарламасы оқушыларға ХХІ ғасыр дағдыларын дамытуға мүмкіндік бермейтіндігі үшін сынға ұшырады. Бұл мәселе 2014 жылы Экономикалық Ұнтымақтастық және Даму Ұйымы (ЭЫДҰ) өткізген орта білім туралы зерттеуінде сипатталған. Бұл мәселені шешу үшін ЭЫДҰ тобы мектеп бағдарламасының мазмұнын қайта қарауды ұсынды. Бұл ұсыныс 2016-2017 оқу жылында енгізіліп басталған жаңартылған оқу бағдарламасы түрінде жүзеге асырылды.

Зерттеудің мақсаты Ақтау қаласының жалпы білім беретін орта мектептердің біріндегі мұғалімдердің жаңартылған білім беру бағдарламасы туралы көзқарастарын анықтауға бағытталған. Сондай-ақ зерттеуде мұғалімдердің жаңартылған бағдарламаны қабылдауына әсер ететін факторларға назар аударылды. Мұғалімдердің көзқарастарын терең зерттеу үшін аралас әдістер пайдаланылды. Бұл тәсіл бірінші кезекте мұғалімдердің жаңа тәжірибелермен қаншалықты қанағаттанғандығын анықтаса, содан кейін іріктелген қатысушылардың жауаптарын сапалы деректер арқылы толығырақ түсіндіріп берді. Қатысушылардың әртүрлі сипаттамалары бұл мәселені түрлі көзқарастардан көруге мүмкіндік берді.

Сандық бөлімнің нәтижелері мұғалімдердің көпшілігі жаңа реформалар туралы оң көзқарасқа ие екендігін көрсетеді; тек бірнеше пікірлер мұғалімдердің бағалауға қатысты теріс көзқарасын анықтады. Берілген жауаптар зерттеудің сапалы бөлігінде тереңірек зерттеліп, нәтижесінде тәжірибелі мұғалімдердің жаңартылған бағдарламаның мазмұны мен педагогикасындағы өзгерістерге қанағаттанбайтындығы, ал тәжірибесі аз мұғалімдердің жаңартылған бағдарламадан көп мүмкіндіктерді көретіндігі анықталды. Дегенмен, білім беру ресурстарының жеткіліксіздігі, оқушылардың оқу қабілеттері мен деңгейлерінің әртүрлілігі және сыныптағы оқушылардың санының тым көптігі, ата-аналардың белсенділігінің төмен болуы, бұрынғы естеліктер мен жоғары жақтан көрсетілетін қысым секілді

## TEACHERS' ATTITUDES TOWARDS IMPLEMENTATION OF THE UPGRADED CURRICULUM IN A SECONDARY SCHOOL IN AKTAU

кедергілер мұғалімдердің жаңа өзгерістерді жүзеге асыруға деген ынта-жігерін шектейтіндігі де анықталды.

*Түйінді сөздер: жаңартылған білім беру мазмұны, оқу бағдарламаларын реформалау, мұғалімдердің көзқарасы.*

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## **Chapter 1: Introduction**

### **1.1. Background information**

Currently the educational system of Kazakhstan is undergoing the major reforms related to primary and secondary school curriculum. The previous curriculum, which was inherited from Soviet Union, came under severe criticism for being focused on factual knowledge and memorization (Fimyar, 2014; Silova & Steiner-Khamsi, 2008; Yakavets, 2014). The studies revealed that curriculum functioned during soviet and post-soviet period is highly ineffective in allowing students to acquire the skills of twenty first century (Silova & Steiner-Khamsi, 2008; OECD, 2014), therefore presenting threat to the establishment of strong human capital that is also considered as one of the main factors influencing on country's success (Yakavets & Dzhadrina, 2014). In this regard the Government of Kazakhstan launched several policy documents aimed to ensure quality education and consequently join European educational space (Silova & Steiner-Khamsi, 2008).

In 2010, the State Program of Education Development of the Republic of Kazakhstan for 2011-2020 (SPED) was adopted as the organizational basis for the national educational policy stating that by 2015 the Kazakhstani educational system would correspond to the models of developed countries through the transition to new reforms (MoES, 2010). Since then Kazakhstan has made significant progress in increasing primary and secondary school student enrollments, providing access to basic education for all population (World Bank, 2013). However, providing quality education remains a challenge. For the first time, the issue of quality education was noted when the results of the Programme for International Student Assessment (PISA) in 2009 showed low performance of Kazakhstani students in mathematics, reading and in science (World Bank, 2013). The results of the PISA 2009

revealed that teachers of the general schools give strong subject knowledge, but do not teach students to apply them in the real-life situations (MoES, 2012). Researchers explained such low performance of students as the result of Soviet legacy, which was mainly based on memorization, theory-based knowledge, rigid and inflexible approach in teaching (Fimyar, 2014; McLaughlin et al., 2016; Yakavets, 2014).

To address the given issue a five-year National Action Plan (NAP) for Development of Functional Literacy for Schoolchildren was introduced in 2012. The main goal of the NAP is to create conditions for the development of the functional literacy skills of schoolchildren, develop their creative thinking and problem-solving skills, and build up the readiness of schoolchildren that enables them to apply effectively the acquired knowledge in real-world settings (MoES, 2012; OECD, 2014). To reach this goal NAP suggested a number of measures including an upgrade of education standards, programmes and curricula (OECD, 2014).

A similar suggestion to review the content of the curriculum was made by Organization for Economic Cooperation and Development (OECD) that conducted research on secondary education of Kazakhstan in 2014. According to OECD (2014), the previous curriculum was too broad and overloaded by academic subjects focusing more on theoretical knowledge rather than on its practical application. It also limited the opportunities of students to develop creative and critical skills by eliminating a number of subjects after 7<sup>th</sup> Grade such as arts, music and drama. Moreover, such overloaded curriculum was inaccessible for low performing students, thereby causing the gap in the students' performance. Therefore, the OECD team recommended Kazakhstani policymakers to review the curriculum of secondary education, narrow down the number of academic subjects and add the subjects fostering the development of higher-order thinking skills, support students' interest to learning process through raising their

motivation and enthusiasm, paying more attention to those ones who struggle academically (OECD, 2014).

The above recommendations and suggestions have been taken into consideration and as a result, Kazakhstani policymakers have made the first steps towards new reform aimed at improving the quality of education by transition to the new content of school curriculum, which is known as “*zhanartylgan bilim беру bagdarlamasy*” (Kazakh for upgraded curriculum). Different studies indicated it by different terms such as new curriculum (McLaughlin et al, 2016; Gimranova, 2018), renewed curriculum (Ivanova, 2018) and updated curriculum (JSC “IAC”, 2016). This study employs the term of “upgraded curriculum”. The basic concept of this curriculum is functional literacy of school children that allows them to use their knowledge in the real life.

## **1.2. Policy context**

Phased implementation of new reform started in the 2016-2017 academic year, when Grade 1 students of all schools over the country switched to the upgraded curriculum. Before implementing the new program, it has been piloted in Nazarbayev Intellectual schools (NIS) that were established as experimental arena for new reforms and are expected to be the model for mainstream schools to follow (Bridges, Fimyar & Yakavets, 2014). According to the MoES (2018), in 2017-2018 academic year, the transition was completed in 1<sup>th</sup>, 2<sup>nd</sup>, 5<sup>th</sup>, 7<sup>th</sup> grades, and from September 1, 2018 the students of 3<sup>rd</sup>, 6<sup>th</sup> and 8<sup>th</sup> grades transferred to the upgraded curriculum. As for 4, 9, 10, 11 grades it is expected that these grades will switch to upgraded curriculum in the upcoming academic year.

Transition to upgraded curriculum involves changes in the following areas:

- Revision of the curriculum content that allows students to develop functional literacy and a wide range of skills through competence-based approach. Students are expected to have more challenging intellectual abilities such as analyzing, synthesizing, problem solving, reasoning, evaluating and etc.
- Introduction of criteria-based assessment, where learners' achievements are not evaluated by traditional marks 5, 4, 3, but according to definite criteria and rubrics that are generated from learning objectives. Such approach helps to identify the gaps in students' performance and work towards their achievements;
- Switching from teacher-centered approach to student-centered approach, according to which teachers are required not to teach, but to direct and motivate students for independent learning through active teaching methods such as group work, role play and research (Ixanova, 2017).

One more distinctive feature of the upgraded curriculum that is emphasized within the reform is the role of English language and introduction of trilingual education with English language of instruction of science subjects such as chemistry, biology and physics (OECD, 2018). Due to this currently science teachers are being trained at English language courses as a part of their professional development (OECD, 2018).

The role of teacher in the new reform is also defined as the main implementer and facilitator. In order to realize new reform effectively Kazakhstani teachers are expected:

- To know and understand the structure, content, goals and objectives of the upgraded curriculum;
- To be able to use pedagogical approaches and educational materials in accordance with the upgraded curriculum;
- To understand and apply criteria-based assessment;

- To possess skills and abilities required for the implementation of the new curriculum (NCPD Orleu, 2017).

Other change that has been introduced within the framework of the upgraded curriculum is related to the workload of teachers and students. All mainstream schools have switched to five-day work week. This is possible due to the duration of one academic hour that has been decreased from 45 minutes to 40 minutes. It has been also suggested to reduce the amount of homework so that schoolchildren could have an opportunity to rest after a busy school day. The workload of teachers burdened by extensive amount of paperwork is also expected to be reduced through the introduction of e-journals and electronic lesson plans.

### **1.3. Statement of problem**

Teachers play the vital role in curriculum implementation as they are considered to be the main “agents of change” (Pristley, 2010, p.2). However, some studies revealed (Guskey, 1989; Ayubayeva, 2018) that not always teachers are ready to accept the role of changemakers due to their attitudes and beliefs. Henson (2010) states, that first of all, teachers must change their behavior in order to accept the changes in the curriculum. This statement was supported by Hinde, who also concluded that teachers' attitudes and beliefs in the efficacy of change may contribute to successful implementation of educational reform (as cited in Ungar, 2016).

Therefore, it is highly important to identify teachers' perceptions, beliefs and attitudes towards upgraded curriculum and find out the factors that support or impede curriculum implementation.

#### **1.4. Research purpose**

The purpose of the study to explore teachers' perceptions of implementing the upgraded curriculum in one of the mainstream schools in Aktau, city of the Mangystau province of Kazakhstan, to identify the level of satisfaction of teachers with new practices and to analyze the factors influencing on teachers' perceptions of the upgraded curriculum. This study will examine the curriculum changes from the teachers' perspective and provide an invaluable insight into the actual situation within the secondary school.

#### **1.5. Research questions**

The following research questions emerge from the problem statement associated with attitudes of teachers towards the upgraded curriculum:

- 1) How and to what extent teachers are satisfied with new practices related to the upgraded curriculum?
- 2) What are teachers' perceptions of implementing the upgraded curriculum?
- 3) What factors influence on teachers' attitudes towards the upgraded curriculum?

#### **1.6. Definition of central phenomenon**

The central phenomenon of this study is secondary school teachers' perceptions and beliefs about upgraded curriculum and the factors generating or constraining the change in their attitudes.

#### **1.7. Significance of the study**

This study is significant in terms of contribution to existing body of empirical research on the implementation of the upgraded curriculum in Kazakhstan. The amount of studies carried out in this field is not so extensive, especially those ones exploring teachers' attitudes and perspectives on curriculum change process. Therefore, this study



may fill the gap in the literature on curriculum change and attitudes of teachers to this change.

It is also important to study the perceptions of secondary school teachers towards the upgraded curriculum, identify the challenges they face in its implementation and what kind of assistance they need as they are direct implementers of new reform. This will allow readers to regard reform implementation from teachers' perspective. As for teachers, the study gives them an opportunity to express their thoughts and opinions about the content of the upgraded curriculum and reflect on its implementation. In addition, the result of the study will redound to the benefit of educational policymakers and reformers in making the necessary adjustments in further curriculum implementation.

### **1.8. Outline of the study**

The overall structure of the study takes the form of six chapters, including this introductory chapter (Chapter 1). Introduction part of the thesis describes the context of the study that led to the launch of the upgraded curriculum reform, and sets the purpose of the research as well as research questions that guide the process of the study. It also defines the significance of the study and gives short outline of the thesis. Chapter 2 includes a review of the literature and studies on curriculum change and the role of teacher in the educational reforms. The research methodology including research design, the research site, the sampling of participants, data collection and data analysis processes are described in Chapter 3. Ethical considerations, limitations of the study along with my reflections as a researcher are also presented in Chapter 3. Chapter 4 presents the findings of the research, the discussion of which will be followed in the next chapter (Chapter 5). Finally analyzing all mentioned above parts, I present my conclusions concerning the current development of reform initiative and teachers' attitude towards its implementation in the last part of the paper.

## **Chapter 2: Literature Review**

### **2.1. Introduction**

This chapter reviews literature relevant to the current research topic. Mainly, it analyzes studies related to curriculum change, determines teachers' role in reform implementation and defines the attitudes of teachers toward changes in the education system.

### **2.2. Curriculum change and the nature of reform implementation**

A large and growing body of literature has investigated the process of curriculum change and its implementation due to the frequent changes in educational systems occurring all over the world. According to Kelly (2009), numerous significant alterations have been made in education systems in the last 20-30 years. He considers curriculum change as a natural process taking place in the society that experiences daily changes at all levels. Being a part of this society, educational organizations must respond to these changes accordingly. In this regard, Kelly (2009) states that "The nature and structure of our education system must be changing so extensively at a time when we have been experiencing social change of an equally dramatic kind, much of it prompted by rapid technological advance" (p.5). The same thoughts about curriculum change were expressed by Amogshie-Viglo (2014), who concluded that "if an organization needs to be successful, it must change continually in response to significant developments such as public expectations, technological breakthrough, and governmental regulations" (p.94). Therefore, changes in curriculum take place in order to meet the requirements of changing society.

To make an educational change is not an easy process. Bringing into reality the change in the curriculum is its implementation. Numerous studies have attempted to explain the nature of curriculum implementation. Bishop (as cited in Ornstein & Hunkins,

2018) concluded that curriculum implementation needs restructuring and replacement. According to Ornstein and Hunkins (2018), "it requires adjusting personal habits, ways of behaving, program emphases, learning spaces, and existing curricula and schedules" (p.257).

Newton and Tarrant (1992) in their studies introduced two types of change: reactive and proactive change. Reacting means that people in schools are implementing the change in order to respond to demands from the top. In such situations the initiative to change is not taken by people, usually they only act once there is the necessity to respond to something different or when they are required to follow the instructions or behave in a certain way. As for proactive change, it involves actively making an attempt to create alterations to the work place and its practices. Proactive teachers feel responsibility for change and are eager to improve teaching and learning processes. Such teachers tend to adjust the goals they are provided with by administrators in order to make change positive (Bindl & Parker, 2010). "As schools have to devote a high percentage of adult time to direct teaching, the most important steps in setting out on the path to proacting are the allocation of time and the decisions about objectives" (Newton & Tarrant, 1992, p.11), which means that effective changes require time to put into practice new initiatives and perceive the futility of the change. As Fullan states that educational changes are "hard to conceive and even harder to put into practice" (2007, p.51).

Furthermore, Fullan (2007) describes the nature of implementing educational change as a multidimensional process including the use of three main components: 1) new or revised materials, 2) new teaching approaches and 3) modification of beliefs. The author emphasizes the significance of all three components in achieving educational objectives and states that "the change has to occur in practice along the three dimensions in order for it to have a chance of affecting the outcome" (Fullan, 2007, p.31), which means that in

order to get successful results all three components should be used in practice. Nevertheless, some educators may use them partially, for instance, a teacher may use materials of new curriculum without modification of teaching strategies, or even use both of them, but without a sense of understanding the meaning of the change (Fullan, 2007). The last one presents a greater difficulty as it concerns unstated assumptions of people about teaching and learning processes and to change them is not an easy task. If educators do not understand why they are implementing the new practices the change will be superficial only (McLaughlin & Mitra, as cited in Fullan, 2007, p.36).

The concept of surface change was also discussed by Sparkes (as cited in Lynch, 2014) who regarded teachers as the key figures in implementing change. He proposed that teachers need to go through three levels of change. The first level includes the change in learning resources necessary for teaching such as textbooks, instructional resources and curriculum packs. The second level is considered to be established when teachers update their teaching skills and methods, styles and strategies. And finally, teachers reach the third level of change if they are able to transform their beliefs, values and understandings. Unless all three levels are established only surface change will occur (Sparks, as cited in Lynch, 2014).

To conclude, changes in curriculum occur as a response to the alterations and innovations in the society that is changing all the time. In order to fit the requirements of a changing society and prepare children for future life, policymakers launch educational reforms. As can be seen, the nature of curriculum change is a complex process, the successful implementation of which depends on several factors such as renewed content of learning materials and resources, the use of new teaching skills and strategies and teachers' perceptions of curriculum change. If all these factors are implemented in the right way, change will be real and proactive. However, not all teachers are ready to accept the new

meaning of curriculum which in its turn may cause constraints in reform implementation. Teachers may follow the requirements instructed from the top by introducing new learning materials and teaching strategies which leads to reactive change, but this type of change, according to reviewed literature, will lead to surface change only unless teachers change their beliefs and attitudes.

From the above discussion it is obvious that changes in the curriculum will happen as long as changes occur within the classroom; the key figure in the implementation of this change is a teacher. Therefore, the next section of literature review will discuss the role of teachers in the curriculum reform.

### **2.3. The role of teachers in curriculum reform**

The teacher is a key player in curriculum reform as it is the one who is responsible for implementing the changes and innovations at the classroom level that are initiated by the policymakers. Ormnstein and Hunkins (2013) state that “teachers must be central to any curricular improvement” (p.279). Giroux regards teachers as drivers of program establishment and its application (as cited in Ormnstein & Hunkins, 2013). Pristley in his studies (2010; 2013; 2016) discusses the concept of teachers’ agency prescribing them the role of curriculum developers and agents of change. The author states that the intrinsic meaning of changes in modern curriculum is a “renewed vision of teachers as developers of curriculum at a school level” (2013, p.6), therefore changing the role of teachers from passive followers into active curriculum developers.

However, in most cases the teachers’ perspectives are often disregarded, though they play an essential role in the teaching and learning process (Davis, 2009). Many studies indicated that teachers face a lot of challenges while implementing new reforms as the consequence of the top down approach (Davis, 2009; Pristley, 2013; Ibraimova, 2017;

Gimranova, 2018). Usually teachers have to follow the state standards written by policymakers and respond to demands concerning the state curriculum. Curriculum developers, in their turn, usually issue recommendations for teachers on how the subjects should be taught, but do not guide them in ways of implementing the curriculum itself (Davis, 2009). According to Hargreaves, Earl, Moore and Manning (2000) "Standards typically define the process as well as the ends of learning in guidelines for teachers, and outcomes are stated in more general terms that give teachers more latitude in and responsibility for specifying the means" (p.19). Moreover, we should not forget that once such standard-based curriculum is mandated, the teachers are accountable for its implementation. As a result of such a top down approach, teachers who are obsessed with reaching the outcomes indicated in the state standards become exhausted and burn out because of endless reports and paperwork. In this regard, Goodson described teachers as "technical deliverers of guidelines and schemes" and noted that such standardization decreases the professionalism of teachers instead of enhancing it (as cited in Hargreaves et al, 2000, p.23). As a solution to this issue, Fullan (2015) suggests to provide more autonomy for teachers, that in turn, will lead to teacher empowerment and increase the role of teachers in curriculum development (Romanish, 1992 as cited in Xiao, 2013).

However, not all teachers are ready to take on autonomy and use it for the sake of reform implementation. A majority of teachers are not ready to take advantages of curriculum changes as they are used to keeping their heads down and doing as they are told to do (Crossley, 2013). Fullan in his book "Freedom to Change" (2015) provides an example of Australia which underwent few reform changes ensuring more freedom to public schools. The educators of those schools described that change as "learned helplessness" that was interpreted by Fullan as "people are so used to being directed that they find difficult to take advantage of the new flexibility" (2015, p.15). This issue was

also revealed in the study of Ayubayeva (2012) who investigated implementation of new NIS curriculum in the context of Kazakhstan in 2010. In her another study Ayubayeva (2018) later observed that “it was naïve to think that teachers accustomed to working with a centrally-devised and dictated curriculum would be enthusiastic about the opportunity to design the new skills-based curriculum alongside experienced scholars” (p.7). The commitment of teachers to curriculum development process was very weak as most of teachers were used to the Soviet legacy that restricted teachers' abilities to take a leadership position.

Another obstacle connected with teacher's attitude is pedagogical legacy, to which most teachers are accustomed. Fullan (2017) states that most teachers are used to certain pedagogical practices and because of them they do not want to accept new changes. Such teachers prefer to follow their old experiences rather than trying new methods and introducing some changes in their practices. Even if they want to change and start the change – they go back to their comfort zone they are used to. Plant (1987) discussed the same phenomenon of teachers' reluctance to change in his study and mentioned the factors that evoke such reluctance and resistance. According to Plant (1987) there are some factors that seriously impede implementation of change and induce certain reluctance among teachers. These factors are fear of the unknown, lack of information, threat to core skills and competence, fear to fail, reluctance to experiment and let go (Plant, 1987).

As a solution to such issues different researchers propose different suggestions. Having studied a considerable amount of literature concerning this issue I have identified several factors that stimulate teachers' commitment to any innovation: teachers' readiness, teachers' environment and support. These factors will be discussed further in the next section.

### **2.3.1. Readiness of teachers.**

Lack of teachers' capacity and unpreparedness may cause an "implementation gap" (Supovitz, as cited in Pristley & Minty, 2013, p.40) between the purpose of the reform and classroom practices. Due to this, numerous studies discuss the importance of teachers' readiness to any change (Alsubaie, 2016; Ngussa, Waiswa & Makewa, 2015; Pristley & Minty, 2013).

In order to contribute to curriculum implementation, teachers need to have a sense of readiness for this process. They should be provided with necessary knowledge and skills that are usually delivered at various professional development courses, trainings and workshops as well. According to Okello and Kagoire (1996) successful implementation of changes in the curriculum needs the capacity of well-trained teachers able to understand the meaning of new initiatives and implement them in a right way. The effectiveness of such courses influences directly on the teacher's engagement in the new curriculum implementation. Ngussa, Waiswa and Makewa (2017) examined teachers' participation in the curriculum change of Tanzania and Uganda. The results of their quantitative study indicated that teachers were not ready for new changes due to inefficient delivery of professional development trainings and workshops. Consequently, this led to low involvement of teachers in curriculum change (Ngussa, Waiswa & Makewa, 2017).

Raising teachers' capacity through professional development courses is apparently very significant for curriculum implementation. However, there are also other factors that increase a teacher's commitment to be an agent of change. According to Pristley (2013), "teachers agency is ecological" (p.22) and teachers being agents of change and how they execute their duties by the means of their environment will be discussed below.



### **2.3.2. Teachers' environment and support.**

Not only readiness impacts positively on teachers' commitment. The environment in which the teacher work is also a significant factor that encourage teachers to become involved in curriculum implementation. Many studies indicated that environment and climate of school was directly connected to teachers work performance and commitment (Huang & Waxman, 2009; Jepson & Forrest, 2006; Pearson & Moomaw, 2005; Pristley, 2015; Suyundikova & Zhaksylykova, 2018; Tsui & Cheng, 1999; Xiao, 2013). Most of these studies relate school environment to organizational climate of the schools which implies structural relations (such as teacher-teacher, teacher-principal) within the school (Smith, 2009). As for Xiao (2013), he broadened the meaning of the concept 'environment' and included supportive school atmosphere, adequate material conditions, teaching resources and a reasonable workload into environmental factors. Pristley, Biesta, Philippou and Robinson (2015), in their study about teacher agency, described this concept from an ecological approach stating that the environment of a school refers to "conditions under which, and the means by which, teachers are able to achieve agency in their everyday practices" (p. 5). This also implies both structural and material resources as well.

Such a supportive environment in schools should be provided by school leaders and administrators. It is the principal to assign the workload of staff, therefore influencing on their motivation, job satisfaction and working conditions (Xiao, 2013). As an evidence, the results of Leithwood and McAdie's study (2007, ac cited in Davis, 2009) indicated that supportive school structures are crucial in teachers' commitment as well as the leadership style of the principal. The same findings were revealed in the study of Yucel (2008) who concluded that support from administrators had a positive impact on the commitment of Turkish elementary school teachers.

Another study carried out by Pristley in 2010 in two Scottish secondary schools responding to new curriculum reform revealed the same findings. Comparing the results of studies, the researcher found that the school with high levels of support from school administrators, teachers' participation and autonomy showed proactive change where new initiatives were internalized and practiced by teachers effectively. While in the second school, where there were lower levels of all three aspects, the commitment of teachers to new curriculum was weak and all new practices were internalized without understanding the core idea of the change (Pristley, 2010).

Based on the discussions above, it can be concluded that in order to implement the curriculum change effectively, teachers need to transform themselves from passive curriculum implementers into active curriculum developers. For this researchers suggest to empower teachers with more autonomy and become active change agents. However, due to old experiences and pedagogical legacies, most teachers refuse to change and accept new practices. This consequently leads to a lower commitment of teachers in the curriculum change process. It was suggested to pay more attention on teachers' preparation and readiness as well as environmental support organized by school administrators. The results of the studies also confirmed that schools with good preparation of teachers and high environmental support achieve success in implementing changes in the curriculum. Otherwise teachers implement the curriculum change, but without understanding its core meaning. This means that teachers change their practices but not their beliefs and attitudes.

The next section of the literature review explores changes in teachers' attitudes and beliefs respectively.

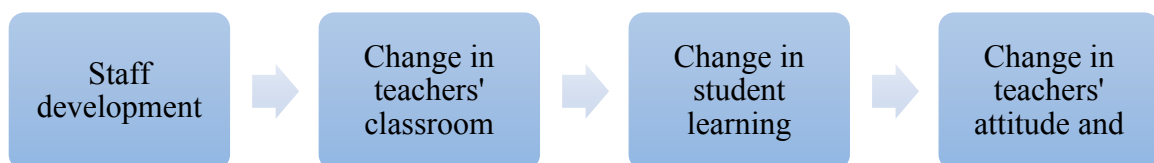
#### **2.4. Teachers Attitudes toward Curriculum Reform**

In the discussion on the nature of curriculum change that was mentioned above we have considered several points about surface and real change. In order to make a real change it should be altered at three different dimensions, one of which is the attitude of teachers. The authors such as Fullan (2007) and Sparks (as cited in Lynch, 2014) state that the change of people's attitude is the most challenging component to modify. Otherwise, the change will be superficial only. That is why it is very important to pay attention to the modification of attitudes and beliefs of teachers.

The change in people's attitude and beliefs has been a large and growing body of literature. According to Mackenzie and Lawler (1948), the change in any system will be successfully if change occurs in people; "Only as their values, understandings, and skills are changed will the curriculum be modified. Even changes in materials in the school necessitate changes in people" (Mackenzie & Lawler, 1948, p.274). Ornstein and Hunkins (2018) state that for implementation of curriculum educators are required "to change not only their knowledge sets regarding curricula and their creation and delivery, but also their mindsets, and perhaps, even their personalities" (p.257). Teaching is a moral profession, that is why first, there is a need to change the mindset of teachers, allow them to grow and link their moral purpose that drives them with the tools of change (Fullan, 1993), therefore enforcing attitudinal changes in teachers.

Most researchers accepted that change in teachers' beliefs is fundamental ingredient for effective implementation of any reform. According to Iskandar (2015), "successful changes in curriculum and its implementation need teachers' wholehearted cooperation and support" (p.38). However, in most cases teachers do not want to accept new practices and changes within their classroom, as they have already been used to their pedagogical legacies. A majority of studies have indicated this factor as the main barrier of reform

implementation. There are very few studies suggesting the ways to overcome this challenge. Reviewing an extensive amount of literature in search for the best model that also could be applicable to our Kazakhstani context, I decided upon the model of change suggested by Guskey (1989). The researcher proposed a simplified model of change that describes the sequence of outcomes in the process of teacher change through staff development efforts (Guskey, 1989). The illustration of the model is shown in Figure 1. According to the model, teachers need to be prepared to curriculum change in the first place. As was stated before, good professional development trainings will allow teachers to enhance their pedagogical practices and learn new teaching strategies and skills. Once teachers master new knowledge they will be able to apply it within their classrooms. The author of the model suggests that teachers will be able to change their perceptions only when they can see the improvement in students' learning outcomes. Such positive change in the students' performance is expected to come from certain changes in classroom practice, for instance, such as using of new teaching approaches and strategies, assessment tools, new courses and learning materials introduced in the curricula as well as just simple modification in the steps of teaching (Guskey, 1989).



*Figure 1. A model of the process of teacher change (Guskey, 1989).*

“Teachers need to know the learning intentions and success criteria of their lessons, know how well they are attaining these criteria for all students, and know where to go next in light of the gap” (Hattie, as cited in Hargreaves & Fullan, 2012, p.52). They need to feel new practices and apply them effectively.

Guskey (1989; 2002) explains that attitudes and perceptions about teaching are determined by classroom experience. If the new teaching methods and strategies work and demonstrate achievements in students' performance, teachers are more likely to perceive the change as a positive practice and start implement them in their daily experiences. Positive learning outcomes of students shape positive attitude of teachers. If the activities introduced in the new curriculum do not work, teachers will drop out them from their practice and not perceive the change accordingly.

At the same time, Guskey informs us that students' improvements can be observed not only in the final scores, but also in students' behavior, level of classroom participation as well as motivation for learning (Guskey, 2002). This suggests that learning outcomes contain considerable evidences that teachers can utilize to assess the efficiency of the curriculum innovations.

The given model of teacher change has been supported by many researchers. Bolster (1983) in his ethnography indicated that experienced teachers perceived the changes in instructional approach positively after having seen the students' achievements in their learning process. Other studies aimed to increase teachers' commitment in the implementation of innovative accomplished in failure when project managers tried to involve teachers in problem-solving and decision making without preparation before they started to implement them. The situation became better when teachers tried new practices in their classroom and only then their commitment to the change process raised

significantly (Crandal et al, 1982, as cited in Guskey, 2002). One more example is the case study conducted by Huberman on implementation of the Exemplary Center for Reading Instruction (ECRI) program in a district school. The results of this study revealed that during six month of program implementation, teachers were confused as they did not understand the sense of program deeply. After some time teachers began to understand certain parts of the program at the cognitive level, but still had little understanding of the implication of particular activities and their outcomes. Finally, teachers reached full understanding when the mastery of all program parts was achieved (Huberman, 1981, as cited in Guskey 2002).

Despite the fact that the Guskey's model of teacher change was supported by some studies that regarded the model as an accurate description of teachers' experiences, it was also criticized by other researchers (Clark, 1988; Tom, 1986). According to them, Guskey represented teacher change as a linear process that simplified the extremely complex process of teachers' professional development. The model was also judged as being a non-reflective and non-cyclic process where four dimensions can interact with each other. Later Clarke and Peter, (1993) improved the model of Guskey by introducing the arrows of "reflection" and "enactment", therefore linking all four dimensions with each other. According to the authors, this renewed model recognizes the complexity of teachers' professional development through interaction of four dimensions which are *personal domain* that stays for knowledge, believe and attitude of teachers, *domain of practice* for professional experiences, *domain of consequence* that indicate the outcomes and *external domain* that represents different sources of information and support (Clarke & Peter, 1993).

The reviewed literature helped me to understand the nature of change as well as the teachers' role in the change process and curriculum implementation. Several factors that

lead to change in teachers' practices were discussed. However, the implementation of new practices does not mean the change will result in success. Real change happens when change occurs in teachers' attitudes. In the next chapters of the thesis, the methodology of the study as well as findings of the study will be presented.

### **Chapter 3: Research Methodology**

#### **3.1. Introduction**

This chapter introduces and justifies the research methodology employed in this study to explore the teachers' attitudes towards implementation of upgraded curriculum, to research the factors that support new curriculum implementation as well as factors impeding its implementation. More specifically, this chapter elaborates the selection of research design, the study participants and research site. It also provides a detailed description of research procedures, instruments and methods that were used for data collection and analysis. Further, the chapter presents a section on methodological limitations of the research as well as ethical considerations.

#### **3.2. Research design**

To address the research purposes and to get detailed answers to each research questions, this study applied the mixed-methods approach, which combines and integrates both quantitative and qualitative data within one research (Creswell, 2002). This approach is a relatively new one in social and human sciences that was applied for the first time around the 1980s and 90s. That is why different studies indicated it by various terms such as integrating, multimethod or mixed methodology; however, in the recent research studies, it was nominated as the mixed methods (Creswell, 2014). Creswell (2014) emphasizes the value of the given approach at three levels: i) at a general level, it is secure because it draws on both quantitative and qualitative research, ii) at a practical level, comparing with other approaches it is considered to be more sophisticated and complex approach, and iii) at a procedural level, it gives an opportunity to understand the research questions more deeply. Taking into account all the advantages of this approach, the choice of research design stopped on mixed methods.



There are several types of mixed methods strategies, the choice of which depends on the nature of the integration of quantitative and qualitative data (Creswell, 2014). If two different databases are going to merge with each other, it is better to use convergent mixed methods approach. If one set of data is supposed to inform the second data collection, it means that the type of design here is sequential one (Creswell, 2014). As for this study, it was carried out in the explanatory sequential design that involved two stages of data collection and analysis (Creswell, 2014). According to Creswell (2014), "it involves a two-phase project in which the researcher collects quantitative data in the first phase, analyzes the results, and uses the results to plan or "build on to" the second qualitative phase" (p.224). The author also states that the given design allows the researcher to study and understand the research problem in depth (Creswell, 2014).

At the same time, Creswell mentions the challenges of mixed methods approach that researcher may face during the inquiring process, as it requires more time for expanded data collection and its analysis. Also, the inquirer needs to have sufficient knowledge and understand the nature of both quantitative and qualitative types of research (Creswell, 2014).

### **3.3. Site and sample selection**

This subsection describes the site, population and sampling selection procedures, including the process of recruiting participants for two different stages of the research.

#### **3.3.1. Site selection.**

The study was conducted in one of the secondary schools in Aktau in order to know the perceptions of teachers working in a public school. As was mentioned before, all mainstream schools of the city have been implementing the new curriculum, more

commonly known as "upgraded curriculum" since 2016; therefore the school had more than two years of implementation experience by the start of the data collection process.

Having identified the site selection, I proceeded to gaining access to the mainstream school. This process took a significant amount of time. This procedure was a kind of challenge for me as all public schools required permission from "*gorono*" (city department of education) to conduct the research within their schools. First, I tried to negotiate directly with principals of two different schools providing introductory letter issued by Nazarbayev University Graduate School of Education (Appendix A). However, my appeals were met with refusal, as the only valid document for them was permission letter from *gorono*. Then I filed a written application for conducting research to *gorono* and maintained permission after two weeks. With the permission letter, I was allowed to enter one of the secondary schools and start my data collection.

### **3.3.2. Sampling.**

The sampling procedures for this study included two main stages, where the first one was related to the quantitative part of the research followed by sequential qualitative part of the inquiry. For the quantitative section of the study the sample was selected based on the total population sampling. According to Rai and Thapa (n.d.), "total population sampling is a type of purposive sampling technique where you choose to examine the entire population that have a particular set of characteristics" (p.8). The authors also state that this type of sampling strategy is used for small-sized populations. In our case, the survey was distributed among all teachers teaching in 5<sup>th</sup>-8<sup>th</sup> grades according to the upgraded curriculum, the total number of which was 64. 47 teachers out of 64 responded to survey, but five respondents filled the survey incorrectly. Therefore, the answers of 42 teachers were considered for data analysis.

From the 42 teachers who responded to the survey, all respondents were female (n=42), which means that the teaching profession is continuing to be dominated by women. Among all participants (N=42), 12% (n=5) of them were math teachers, 7% (n=3) were biology teachers, 7% (n=3) of them were chemistry teachers, 14% (n=6) of them were teachers of computer science, 7% (n=3) of them were geography teachers, 7% (n=3) of them were physics teachers, 12% (5) of them were Kazakh language teachers, 7% of them (n=3) were Russian language teachers, 12% (n=5) of English teachers, 5% (n=2) were history teachers and 9% (n=4) were teachers of other subjects such as physical education and self-cognition (*ozin-ozı tanu*).<sup>1</sup>

Regarding the teaching experiences, the table displays that about one-third of the teachers had more than 20 years of experience (36%) followed by nearly quarter of teachers with experience of 1 to 4 years (24%). The percentage of teachers that had 5-10 and 11-15 of teaching experience was the same 14%. As for teachers with 16-20 years of experience, they formed 12% of the survey respondents.

As the focus population were teachers teaching from 5 to 8 grades, all teachers participated in the survey taught in the same grades accordingly. Among all, 41% (n=17) were teaching 8<sup>th</sup> graders, whereas 33% (n=14) of them were teaching 7<sup>th</sup>. As for 5<sup>th</sup> and 6<sup>th</sup> graders, the same number of teachers taught in each grade, that was 26% (n=11). The total amount of teachers teaching in all grades exceeds the number of all respondents. However, we should also take into account that one teacher teaches in more than two different grades.

As a result, for the quantitative part, I had the following number of survey respondents:

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<sup>1</sup> The school subject that helps students to learn about themselves, to discover their best qualities and establish the moral values within the children.

Table 1. Background of survey respondents

		<i>f</i>
<b>Gender (N=42)</b>		
	<i>Female</i>	42
	<i>male</i>	0
<b>Teaching experience (N=42)</b>		
	<i>1-4 years</i>	10
	<i>5-10 years</i>	6
	<i>11-15 years</i>	6
	<i>16-20 years</i>	5
	<i>more than 20 years</i>	15
<b>Subjects (N=42)</b>		
	<i>Math</i>	5
	<i>biology</i>	3
	<i>chemistry</i>	3
	<i>physics</i>	3
	<i>Computer science</i>	6
	<i>geography</i>	3
	<i>Kazakh language</i>	5
	<i>Russian language</i>	3
	<i>English language</i>	5
	<i>History</i>	2
	<i>other</i>	4
<b>Grade level taught</b>		
	<i>5<sup>th</sup> grade</i>	11
	<i>6<sup>th</sup> grade</i>	11
	<i>7<sup>th</sup> grade</i>	14
	<i>8<sup>th</sup> grade</i>	17

According to the table above, each subject had no more than five representatives. That is why I decided to join the subjects into two groups as humanity subjects that

included Kazakh, Russian, English, History and Geography, and science subjects which were math, physics, biology and chemistry. Also, I computed the new variable of teaching experience with the values of 1-15 years of teaching experience and more than 16 years of experience to compare the attitudes of teachers according to their experience. As a result, I had the following groups of teachers:

*Table 2. Computed new variables on teaching experiences and teaching subjects of teachers*

<b>Teaching experience (N=42)</b>			
	<i>1-15 years</i>	22	52.4
	<i>16 years and more</i>	20	47.6
<b>Subjects (N=42)</b>			
	<i>Science subjects</i>	20	54.8
	<i>Humanity subjects</i>	18	35.7
	<i>Other</i>	4	9.5

The next qualitative research stage of the sampling comprised eight participants who were selected purposefully based on the analysis of the survey results. The sample for the qualitative part of the inquiry involved maximum variation sampling. According to Miles and Huberman (1994), maximum variation sampling "documents diverse variations and identifies common patterns" (p.28) that allows the researcher to regard the inquiry from different perspectives and find out common features. It also allows the researcher to select information-rich data and study it deeper (Glesne, 2011).

Thus, these eight teachers represented different subjects and years of experience with various professional qualifications, and among them, four teachers had positive, and four teachers had negative attitudes towards upgraded curriculum according to the survey results:

*Table 3. Background of interview participants*

<i>Pseudonym</i>	<i>Subject</i>	<i>Work experience</i>	<i>Grade</i>	<i>Training on the upgraded curriculum</i>	<i>Attitude toward upgraded curriculum</i>
<b>Marzhan</b>	physics	38 years	7 <sup>th</sup> , 8 <sup>th</sup>	yes	negative
<b>Aiman</b>	Kazakh language	36 years	6 <sup>th</sup>	yes	positive
<b>Karlygash</b>	physics	30 years	8 <sup>th</sup>	yes	negative
<b>Aigul</b>	math	34 years	6 <sup>th</sup>	yes	positive
<b>Laura</b>	biology	9 years	7 <sup>th</sup> , 8 <sup>th</sup>	yes	positive
<b>Aidana</b>	math	1,5 years	6 <sup>th</sup> , 7 <sup>th</sup>	no	negative
<b>Zhuldyz</b>	chemistry	2 years	7 <sup>th</sup>	no	positive
<b>Ayzhan</b>	self-cognition	2 years	5 <sup>th</sup>	yes	positive

*Note.* Only pseudonyms are used.

### 3.4. Recruiting participants

As was mentioned before, the participants for both quantitative and qualitative parts were recruited on a voluntary basis. First, I held the meeting with all teaching staff in order to introduce myself and explain the aim of the research and only then distributed the online survey in order to keep the anonymity of the participants. Beforehand all teachers were given identification numbers and were required to indicate their numbers in the survey for further identification of participant for the qualitative component of the study. Having analyzed the survey responses, I selected ten potential participants for the second part of the study and only then approached them individually and invited them to participate in the interview. However, two language teachers withheld their consent to give an interview, so the number of interviewees decreased to eight. The number of participants was sufficient for interviews; however, I was deprived from the opportunity to learn in depth about perceptions of the upgraded curriculum from language teachers' perspectives. Overall, there were six science subject teachers, one Kazakh language teacher and one teacher of

self-cognition. Despite this limitation, I got a wide range of teaching experiences that allowed me to examine the attitudes of teachers of two different generations.

### **3.5. Data collection procedures and instruments**

As my research design is explanatory sequential mixed methods design, I predominantly used survey, and in addition, I used individual semi-structured interviews with the sample of teachers. I started the data collection procedures after ethics approval. All data collection procedures lasted three months from January till March 2019.

#### **3.5.1. Survey**

To collect quantitative data, I used an online survey developed in Qualtrics. The purpose of the survey is collecting opinions, beliefs and perceptions about the implementation of the upgraded curriculum from secondary school teachers. The survey was administered online the link of which was sent to emails of the teachers. I chose online survey, as it is considered to be rapid and time efficient (Cohen, Manion & Morrison, 2007). Moreover, "surveys are useful to collect factual information, data on attitudes and preferences, beliefs and predictions, behaviour and experiences, both – past and present" (Weisberg et al, 1996, as cited in Cohen, Manion & Morrison, 2007, p. 207).

The questionnaire was distributed among the teachers of Grades 5 to 8 in January 2019. All survey respondents were informed about the purpose of the questionnaire and were given instructions that helped them to be guided in the cover letter. According to Lodico, Spaulding and Voegtler (2006), the researcher needs to provide the cover letter at the beginning of the survey, if he or she wants "to make sure that the surveys are answered accurately and returned" (p.159). In addition, the cover letter provided (See Appendix B for survey questions with cover letter) some information about anonymity and confidentiality of participants, so that they could be aware of ethical issues. Having been

acquainted with the purpose of the instrument and confidentiality issues, respondents proceeded to the first part that included general questions about the background of participants. In the next section, teachers needed to answer whether they agree or disagree with 30 statements related to the upgraded curriculum. These questions were closed-ended questions (statements) with a rating scale from 1 to 5 (Likert scale), where 1 means "strongly disagree" and 5 "strongly agree". Also, the survey included some open-ended questions to get more detailed answers from respondents.

Before administering the survey, it was piloted among my colleagues and secondary school teachers. This process helped me to check the content validity and improve the format of questions. Particularly, I changed the content of some 'agree' and 'disagree' statements simplifying the word choice so that every respondent could understand the meaning of the questions.

The responses were collected during three weeks in January 2019. To ensure a high response among teachers, it was administered three times.

### **3.5.2. Interview**

The research instrument for collecting qualitative data was a semi-structured interview. Interviews are considered to be a powerful tool allowing to extract more detailed data or deep understanding of the subject (Showkat & Parveen, 2017). That is why after the survey was completed, the study continued with qualitative interviews in order to understand the reasons to initial responses and know teachers' opinions about initiatives introduced within the framework of the upgraded program such as new curriculum, textbooks and new principles of assessment.



The format of semi-structured interviews allowed me to prepare some questions in advance and add more questions or skip some of them during the interview depending on the interviewee's responses and interview context (Glesne, 2011).

All interviews were conducted in quiet and private classrooms selected by interviewees so that they could feel comfortable and open to speak. One of the challenges of conducting interviews was an arrangement of time, as both of us, interviewer and interviewee were teachers working in different schools with different timetables. There were cases when interviewees had to change the time of interviews due to unforeseen factors such as substituting their colleagues because of their absence at work. So, it took us long to find a mutually suitable time.

I conducted one interview with each of the eight participants. The Kazakh language was used in conducting the interviews based on the participant's preference. The interviews lasted from 30 to 60 minutes, continuing with informal talks. All valid data told during these talks were recorded in the notebook for further data analysis. Before the start of the interview, all participants received informed consent forms in Kazakh (Appendix C) describing in detail the purpose of the study, the procedure for conducting the study and informing about the role of the participants, their rights, and the possible risks in the study.

When designing the interview questions, I referred to the model proposed by Seidman (1998), who differentiated 3 stages of the interview: 1) *focused life history*, that allowed me to get some background information about interviewees; 2) *the details of experience*, that let me to know about present experiences of teachers related to upgraded curriculum; and 3) *reflection on the meaning*, at this stage participants shared their reflections related to their current and old experiences. During the interviews, I tried to use only open-ended questions to get rich information answers and avoid close-ended

questions that may lead to short responses (Glesne, 2011). The sample of interview questions is given in Appendix D as well. As the format of the interviews was semi-structured, I also asked the follow-up questions where necessary. Note-taking was also used in order to record the key points for follow up questions. All interviews were recorded with the teachers' consent.

During the interviews, I noticed that more experienced teachers tend to speak much and give more details to each question, while less experienced teachers preferred to answer quickly without more in-depth explanations. Also, there was a case with one experienced teacher, who was very positive about changes in the curriculum when the interview was recorded. However, when the recording of the interview stopped, she was more critical about the reform. This means that still, some teachers are afraid to report against the initiatives launched by authorities.

Overall, I interviewed eight teachers of different subjects that allowed me to triangulate the data from different perspectives and improve its validity. According to Fox (2017), diversity of respondents admits to get a wide range of attitudes and draw conclusions "based on a broadly representative sample" (p.8), even if they do not show the average view. On the other hand, a wide range of attitudes may minimize the amount of researcher's bias that is considered as one cause of invalidity (Cohen, Manion & Morrison, 2007), because it allows the inquirer to regard the research topic from different angles.

To sum up, I was pleased to interview the teachers and know more about their experiences. I expressed my appreciation and gratitude to every interviewee at the end of our conversations.

### 3.6. Data analysis

In explanatory sequential mixed methods approach the quantitative and qualitative aspects of the data are analyzed separately (Creswell, 2014). As the results of the quantitative part were supposed to identify the participants for the qualitative part, I started to analyze the quantitative data after survey completion. SPSS data management and statistical analysis tool was used to analyze the quantitative database and find out prevalent patterns and differences in teachers' attitudes towards the upgraded curriculum.

Basically, the descriptive analysis was used to identify the backgrounds of teachers and their attitudes towards new practices introduced within the framework of the upgraded curriculum. To be more precise, background characteristics of teachers, their attitudes towards changes in the curriculum content, assessment system, attitudes towards teachers' competence and workload and attitudes towards support were briefly reported in terms of frequencies, percentages and means, that were demonstrated in tables.

In order to examine the possible relationships among experience of teachers and their attitudes towards changes in the curriculum, data obtained from the survey was also analyzed employing crosstabulations (Mujis, 2011). I decided to use this statistical method, as it allows to look at the relationship between nominal (which is experience) and ordinal ("agree", "disagree" statements) variables (Mujis, 2011). I checked the relationship between the variables through obtaining observed and expected counts in each cell, the different means of which may refer to the relationship between the variables. If there is no relationship, the cells should have the same number of observed and expected counts (Mujis, 2011). The measures of association Phi and Cramer's V were used to identify the effect size of the relationship if it was found between the variables.

As for the analysis of open-ended questions aimed to find out the aim, advantages and disadvantages of the upgraded curriculum as well as recommendations proposed by teachers, the data were coded under appropriate themes considering the survey questions.

The analysis of quantitative data helped to build the next phase of the study and identify eight participants for the qualitative interviews.

To preserve the integrity of the interviews, they were recorded and then transcribed for data analysis. To separate them from each other, all interviews were given different marks. Then I transcribed verbatim all interviews that was really time-consuming. However, during this writing process, I had a chance to recall the information obtained during the interviews and reflect on their analysis.

Having transcribed all interviews, I proceeded to the next step of data analysis. I carefully read all the interview transcripts and generated line-by-line codes. This was the first cycle of coding (Miles, Huberman & Saldana, 2014) that employed mainly two coding techniques such as descriptive coding, which summarizes the chunk of data in a word or short phrase, and In Vivo coding, which represent direct quotations of participants (Miles, Huberman & Saldana, 2014). All generated codes were examined more thoroughly in the second cycle of coding and divided into a smaller number of categories. The same was done with the notes that were taken during the interviews. Then I merged categories developed from each interview transcripts and interpreted them in my findings.

### **3.7. Ethical Considerations**

Before starting my research, I first have completed a web-based educational course of the Collaborative Institutional Training Initiative Program (CITI Program), that provides the knowledge of ethical research. After completing the training, I got CITI certificates justifying that I am fully aware of ethical research regulations. With this knowledge in

October 2018, I went through the procedures of Ethics Review Application and got my approval after two weeks from NUGSE Ethics Committee.

The anonymity and confidentiality of participants' identity was protected throughout this study following the ethics guidelines, and no one except my research supervisor and I had access to all data. All participants of the study were informed verbally and in writing about the procedures of the research. Participation was on a volunteer basis and those who volunteered obtained informed consent at the beginning of the studies. The data was stored in my computer and protected with the password. All data retrieved from the interviews were coded and treated in a way that protects the confidentiality and anonymity of the participants. Pseudonyms were used to protect participants' anonymity. The name of the school was coded as well.

There was a minor risk for participants to be identified in school by the colleagues of participants. But I protected participants' anonymity of names and their confidentiality.

There was a risk of psychological harm to feel embarrassment before or during the interview for those participants who were less satisfied or faced challenges in the implementation of the upgraded curriculum. I ensured to incorporate procedures to protect the confidentiality of the data and anonymity of participants.

The potential benefits of the proposed research for participants and others were that teachers could reflect on their own teaching practice, as well as they become familiar with the research procedures (through participating in this study).

### **3.8. Chapter summary**

This chapter justified the choice of the research approach and methodology of the study. I employed explanatory sequential mixed methods design to explore the teachers'

attitude towards new curriculum reform and find out the factors supporting or impeding its implementation.

## **Chapter 4: Findings**

### **4.1 Introduction**

In this chapter I present the findings of my research on teachers' attitude towards the implementation of the upgraded curriculum. As the research methodology was a mixed study, first I present results of descriptive statistics followed by the findings from the qualitative part of the study.

I first present the descriptive analysis of teachers' attitudes towards the upgraded curriculum. The survey results describing teachers' opinions about the content of the new curriculum and new assessment practices are presented in this section as well as findings related to teachers' competence and workload after implementation of the upgraded curriculum and support that teachers get during its application.

Further, the chapter covers the analysis of qualitative data and is organized around three main themes identified during the data analysis: i) teachers' perceptions of implementing the upgraded curriculum; ii) factors enabling curriculum implementation; iii) factors impeding curriculum implementation.

### **Quantitative data analysis**

#### **4.2 Teachers' attitudes towards the upgraded curriculum**

As was mentioned above, the second section of the questionnaire included 30 statements about curriculum change. All these statements were divided into thematical categories depending on the topic of questions such as attitudes towards the content of the upgraded curriculum, attitudes towards assessment, support and attitudes towards teacher competence and development.

First, descriptive analysis was used to calculate the percentages, numerical mean and standard deviation for each statement and those statements were tabulated in descending

order. The findings then expanded with four open-ended questions that were also included in the questionnaire (these questions asked for advantages and disadvantages of the upgraded curriculum and recommendations).

#### 4.2.1 Attitudes towards the content of the upgraded curriculum

Regarding the teachers' attitudes towards the content of the upgraded curriculum, the survey results indicated that little more than half of the teachers (52.4%) agree that the new curriculum gives an opportunity to develop more skills than the old one ( $M=3.14$ ,  $SD=1.241$ ). They also agree that the content of the curriculum is appropriate to learning objectives ( $M=3.26$ ,  $SD=1.191$ ) and that their achievement is supported by cross-curricular topics ( $M=3.20$ ,  $SD=.890$ ). The results also revealed the positive attitude of the teachers towards the upgraded curriculum regarding its students-centeredness. Teachers reported that new curriculum develops and enhances students' skills and competencies ( $M=3.40$ ,  $SD=1.083$ ) as well as their attitudes and values ( $M=3.38$ ,  $SD=1.081$ ). Moreover, 57,2% of teachers find the content of the upgraded curriculum engaging ( $M=3.10$ ,  $SD=1.226$ ) and appropriate to the age level of students ( $M=3.14$ ,  $SD=1.138$ ). As for new learning materials, they were also well received by teachers stating that they correspond to the subject program and assessment system ( $M=3.38$ ,  $SD=1.058$ ).

*Table 4. Teachers' attitudes towards the content of the upgraded curriculum*

Statements	SD	D	N	A	SA	M	SD
<i>Cross-curricular topics help to support the achievement of learning objectives.</i>	2.4	14.3	19.0	59.5	4.8	3.50	.890
<i>New curriculum enhances student skills and competencies.</i>	11.9	4.8	19.0	59.5	4.8	3.40	1.083
<i>The curriculum helps to form student attitudes and values.</i>	9.5	11.9	14.3	59.5	4.8	3.38	1.081



<i>The provided textbooks correspond to the subject program and the assessment system</i>	7.1	16.7	11.9	59.5	4.8	3.38	1.058
<i>The content of subjects corresponds to learning objectives</i>	14.3	11.9	11.9	57.1	4.8	3.26	1.191
<i>New curriculum develops more skills than old curriculum</i>	16.7	14.3	11.9	52.4	4.8	3.14	1.241
<i>The level of educational material corresponds to the age of students.</i>	11.9	19.0	14.3	52.4	2.4	3.14	1.138
<i>The content of the new curriculum is of interest to many students.</i>	16.7	16.7	9.5	54.8	2.4	3.10	1.226
<i>The number of hours is suitable for achieving the goals and objectives of the curriculum</i>	11.9	31.0	4.8	52.4	0	2.98	1.158

The only lowest among positive responses was the attitude of teachers concerning the teaching hours that were not enough to achieve the learning objectives showing a mean of 2.98 and a standard deviation of 1.158. Some teachers also indicated a lack of teaching hours as the main disadvantage of the upgraded curriculum in the open-ended question.

Overall, almost half of the teachers agreed that the implementation of the upgraded curriculum was the right decision. The same number of respondents (n=11) did not consider it as the right decision or found it difficult to answer (Figure 2).

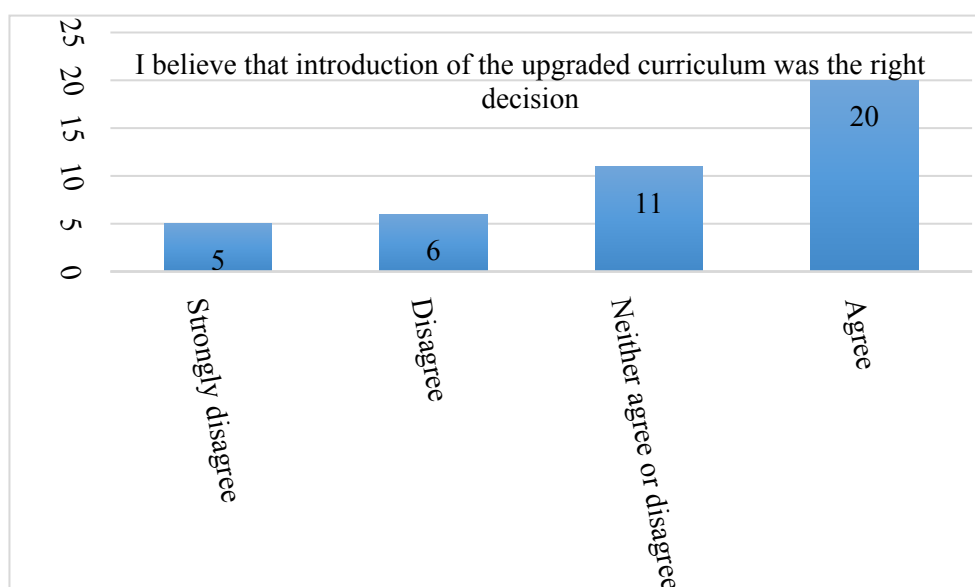


Figure 2. Teachers' beliefs about curriculum implementation

#### 4.2.2 Attitudes towards assessment

The table below demonstrates the teachers' perceptions about the new assessment system and to what extent they agreed with them.

Table 5. Teachers' attitudes towards criterion-based assessment

Statements	SD	D	N	A	SA	M	SD
<i>I feel confident in the application of criterion-based assessment</i>	7.1	0	31.0	59.5	2.4	3.50	.862
<i>I can give effective feedback to each student.</i>	11.9	4.8	23.8	54.8	4.8	3.36	1.078
<i>Assessment guidelines are useful for my practice.</i>	4.8	21.4	9.5	64.3	0	3.33	.979
<i>Feedback is a very effective tool for improving student achievement.</i>	4.8	9.5	16.7	66.7	2.4	3.23	.890
<i>All students understand the learning objectives and work towards their achievement.</i>	7.1	16.7	26.2	50	0	3.19	.969
<i>The results of the summative assessment for the term reflect the real knowledge of the students.</i>	7.1	28.6	19.0	42.9	2.4	3.05	1.058
<i>The results of the summative assessment for the unit reflect the real knowledge of the students.</i>	7.1	35.7	9.5	42.9	4.8	3.02	1.137
<i>Criterion-based assessment shows students' real knowledge</i>	11.9	35.7	11.9	40.5	0	2.81	1.110
<i>I have enough time to give effective feedback to the students.</i>	7.1	42.9	11.9	38.1	0	2.81	1.042
<i>It is easy to track student performance without evaluating them according to the traditional grading system.</i>	11.9	42.9	14.3	31	0	2.64	1.055

From the table, it can be observed that 61.9% of teachers feel confident in using new criteria-based assessment ( $M=3.50$ ,  $SD=.862$ ). They admit that assessment guidelines help them in the implementation of the new assessment in their practices ( $M=3.33$ ,  $SD=.979$ ). 68,9% of teachers also expressed their positive attitudes towards feedback that is supposed to be given to students at the end of each lesson as a tool showing their progress ( $M=3.23$ ,

SD=.890), but only 59.6% of teachers reported on their ability to give it in an efficient way ( $M=3.36$ ,  $SD=1.078$ ). Nevertheless, almost half of the teachers (48%) complained that they did not have enough time for providing the feedback ( $M=2.81$ ,  $SD=1.042$ ) to students. As for summative assessments that are taken several times at the end of each unit and term, less than half of the respondents (47.7% and 45.3% respectively) agreed that they reflect the real knowledge of students obtained during those periods. 50% of teachers also agreed that all students understood the learning objectives and worked towards their achievement ( $M=3.19$ ,  $SD=.969$ ). However, just over half of the teachers (54.8%) faced some difficulties concerning the tracking of students' performance. According to the old curriculum, the teachers had to evaluate their students every day using the traditional grading system from 1 to 5, whereas the new criterion-based assessment does not use any grades for evaluation.

Although half of the teachers agreed that the results of summative assessments for unit and term correspond to real knowledge of students, majority of them expressed a slight negative attitude towards criteria-based assessment stating that it did not reflect the real performance of students.

#### 4.2.3 Attitudes towards teachers' competence and workload

This subsection describes the attitudes of teachers towards the changes in their professional competence and workload after the implementation of the upgraded curriculum.

*Table 6. Teachers' attitudes towards their competence and workload*

Statements	SD	D	N	A	SA	M	SD
<i>My approach to teaching has changed in the last couple of years.</i>	4.8	7.1	2.4	83.3	2.4	3.71	.835
<i>I think that changes in my practice will improve the performance of my</i>	4.8	4.8	11.9	76.2	2.4	3.67	.816

<i>students.</i>							
<i>I understand what is required of me to teach the upgraded curriculum.</i>	7.1	4.8	9.5	76.2	2.4	3.62	.909
<i>I have enough competence to teach a new curriculum.</i>	9.5	11.9	16.7	52.4	9.5	3.40	1.127
<i>I have enough time to plan my lessons.</i>	7.1	19.0	7.1	61.9	4.8	3.38	1.081
<i>New curriculum increased my motivation to work</i>	4.8	16.7	23.8	54.8	0	3.29	.918
<i>The upgraded curriculum has increased the workload of teachers</i>	7.1	23.8	4.8	64.3	0	3.26	1.061
<i>New curriculum allows me to combine work and personal life.</i>	9.5	31.0	11.9	47.6	0	2.98	1.093

From the table above, we can see that most teachers had positive attitudes towards their competences and workload after the implementation of the upgraded curriculum. Majority of teachers (85.7%) agreed that their teaching approach had changed since the implementation of the upgraded curriculum ( $M=3.71$ ,  $SD=.835$ ) and these changes would improve the students' performance ( $M=3.67$ ,  $SD=.816$ ). 61,9% of teachers also indicated that their competences were enough to teach according to the upgraded curriculum ( $M=3.40$ ,  $SD=1.127$ ) and that they completely understand what is required from them. Moreover, according to answers, new curriculum increased teachers' motivation to work ( $M=3.29$ ,  $SD=.918$ ), despite the fact that their workload had increased since the implementation of the upgraded curriculum ( $M=3.26$ ,  $SD=1.061$ ).

#### 4.2.4 Attitudes towards support

Teachers also reported about methodical support provided for implementation of the upgraded curriculum. According to the table (Table 7), most teachers found beneficial assessment guidelines ( $M=3.33$ ,  $SD=.979$ ) and methodological complexes ( $M=3.52$ ,  $SD=.917$ ) for their teaching practice.

*Table 7. Teachers' attitudes towards support*

Statements	SD	D	N	A	SA	M	SD
<i>Systematic methodological complex helps me in my teaching.</i>	4.8	9.5	19.0	61.9	4.8	3.52	.917
<i>Assessment guidelines are useful for my practice.</i>	4.8	21.4	9.5	64.3	0	3.33	.979
<i>School provides enough resources</i>	16.7	40.5	16.7	23.8	2.4	2.55	1.109

However, they also reported that the school did not provide enough resources for their lessons ( $M=2.55$ ,  $SD=1.109$ ). This problem was also mentioned in the answers of an open-ended question about disadvantages in the implementation of the upgraded curriculum.

#### 4.3. Differences in teachers' attitudes towards upgraded curriculum

According to mean scores of the statements, it can be concluded that overall, the teachers are of positive opinion about the new curriculum. However, if we look at the standard deviation of most answers, we can notice that it's quite large which means that the values in the data set are farther away from the mean, on average. This reflects a variation of answers, consequently the attitudes of teachers. That is why I decided to look at the differences in teachers' attitudes according to the subjects they taught and years of their teaching experiences.

As was mentioned before the survey included some open-ended questions aiming to find out the advantages and disadvantages of the upgraded curriculum as well as challenges that teachers face in its implementation. Besides, teachers were asked to express their suggestions regarding the new curriculum. Before analyzing the responses for open-ended questions in general, first, I wanted to review the answers of teachers with less than 15 years of experience and more than 16 years of experience separately. For this, I selected each group of cases and regarded them apart. This procedure allowed me to

compare the answers of two different group of teachers and find out similarities and differences in their attitudes that are presented below.

According to answers, the upgraded curriculum allows students to develop their critical thinking, research skills and ability to express their thoughts freely. They also admitted that the content of the program is interesting for students and that most tasks are connected with real-life situations. Another advantage of the new curriculum indicated by teachers is high participation of students. According to the upgraded curriculum, students learn to work in groups which also ensure the full engagement of all students in the learning process and creates the condition for the development of collaboration skills. Those teachers with less than 15 years of teaching experience indicated as one of the advantages of the upgraded curriculum new assessment system that is criterion-based assessment. They answered that it helps to evaluate the knowledge acquired by students at the appropriate level. However, it is interesting that the majority of experienced teachers that have been teaching for more than 16 years reported that the given criterion-based assessment is the main disadvantage of the new curriculum. They stated that it is difficult to track students' performance without the traditional grading system. One of the teachers also reported that such situation leads to misunderstanding between students and teachers. Also, the lack of teaching hours and learning resources hinder the efficiency of the learning process. Some teachers are not in favour of grouping methods stating that it becomes too noisy on the lessons, while others consider that this method is not appropriate for their subjects (computer science) where mostly individual work of students is preferred. Also, some teachers complained that the tasks given in the textbooks do not correspond to the age level of students, and as a result, they fall behind their classmates. While young teachers reported that the upgraded curriculum simplified the workload of students by reducing the amount of homework, experienced teachers regarded it as a threat due to

which students began to neglect their studies. It was also interesting that 14 out of 22 young teachers reported that they do not see any difficulties in the implementation of the upgraded curriculum.

According to the answers above, it seems like teachers' perceptions about the new curriculum vary depending on their years of experience. While most of the teachers with less than 15 years of experience see only advantages of the upgraded curriculum and support the new initiative of policymakers, more experienced teachers express their resentments against the upgraded curriculum. The main difference in the attitudes of teachers was mainly about assessment. In this regard to make more profound analysis, I run crosstabulations between statements on assessment and the years of experience of teachers (Table 8; Table 9). These tables allow us to look at and examine the relationship between two discrete variables more closely (Szafran, 2011).

			experience		Total
			1-15 years	16 years and more	
Criterion-based assessment shows students' real knowledge	Strongly disagree	Count	4	1	5
		Expected Count	2,6	2,4	5,0
		% within experience	18,2%	5,0%	11,9%
	Disagree	Count	8	7	15
		Expected Count	7,9	7,1	15,0
		%within experience	36,4%	35,0%	35,7%
	Neither agree nor disagree	Count	0	5	5
		Expected Count	2,6	2,4	5,0
		% within experience	0,0%	25,0%	11,9%
	Agree	Count	10	7	17

	Expected Count	8,9	8,1	17,0
	% within experience	45,5%	35,0%	40,5%
Total	Count	22	20	42
	Expected Count	22,0	20,0	42,0
	% within experience	100,0%	100,0%	100,0%

### Symmetric Measures

	Value	Approximate Significance
Nominal by Nominal    Phi	,417	,062
Cramer's V	,417	,062
N of Valid Cases	42	

Table 8. Crosstabs Output for 'Criterion-based assessment shows students real knowledge' by experience of teachers.

This crosstab shows that there are differences between the observed counts and expected counts, which means that there is a relationship between experience and variable "Criteria-based assessment reflects students' real knowledge". However, this relationship is not so strong. The nominal measures of associations confirm this, showing modest relationship between variables (Phi=.417; Cramer's V=.417).

The crosstab illustrates that the per cent of persons reporting they "strongly disagree" about efficiency of criteria-based assessment is 18,2% for teachers with 1-15 years of experience, and 5% for those with more than 16 years of experience, the per cent of teachers reporting "disagree" is 36,4% for teachers with less than 15 years of experience, and 35% for more experienced teachers. Even though the mode shows the positive attitude of teachers with 1-15 years of experience (M=45,5%), this result does not coincide with the answers of open-ended questions where most of the less experienced teachers supported the new criterion-based assessment. As for more experienced teachers',



nevertheless, they reported about difficulties of new assessment in the open-ended questions, the overall mode for their answers is "agree" (M=35%) and "disagree" (M=35%), which means that their opinions are split into two sights.

The same crosstabulation was run between variables "It is easy to track students' performance without evaluating them according to the traditional grading system" and experience. The difference between observed and expected counts of the crosstab suggests the relationship between the variables, that can be confirmed by nominal measures of association with Phi and Cramer's V of .526 both. The modes for both groups indicate disagreement of teachers concerning everyday assessment. The interesting point is that, if we cumulate the per cent for 'strongly disagree' and 'disagree' together, the most of responses disagreeing with the statement belong to teachers' with less than 15 years of experience, which again do not correspond to their answers in the open-ended questions according to which they did not mention any challenges in the assessment.

			experience		Total
			1-15 years	16 years and more	
It is easy to track student performance without evaluating them according to the traditional grading system.	Strongly disagree	Count	5	0	5
		Expected Count	2,6	2,4	5,0
		% within experience	22,7%	0,0%	11,9%
	Disagree	Count	9	9	18
		Expected Count	9,4	8,6	18,0
		% within experience	40,9%	45,0%	42,9%
	Neither agree nor disagree	Count	0	6	6
		Expected Count	3,1	2,9	6,0

	% within experience	0,0%	30,0%	14,3%
Agree	Count	8	5	13
	Expected Count	6,8	6,2	13,0
	% within experience	36,4%	25,0%	31,0%
Total	Count	22	20	42
	Expected Count	22,0	20,0	42,0
	% within experience	100,0%	100,0%	100,0%

### Symmetric Measures

	Value	Approximate Significance
Nominal by Nominal    Phi	,526	,009
Cramer's V	,526	,009
N of Valid Cases	42	

Table 9. Crosstabs Output for 'It is easy to track student performance without evaluating them according to the traditional grading system' by experience of teachers.

To sum up, most statements on the upgraded curriculum had positive responses indicating the means value more than three. Only a few statements on assessment had negative attitudes of teachers with the mean scores less than three. Based on the answers of open-ended questions, it was also found that teachers' attitudes differ according to their experience. The implementation of the upgraded curriculum was easier for less experienced teachers than for more experienced teachers. However, the results of crosstabulations did not confirm this, showing that less experienced teachers are of the same attitudes towards assessment as more experienced teachers.

To study their answers in details, the next stage of data collection proceeded with interviews that will be described in the next section.

**Qualitative data analysis**

Having analyzed the answers on the survey about the upgraded curriculum, eight teachers were selected for the qualitative interviews. The main criterion for their selection for the interview was connected to the identification of teachers with different attitudes towards the upgraded curriculum. They were also supposed to represent different subjects, and they should have different years of teaching experiences. All the interviews were transcribed and analyzed by hand using codes which allowed me to organize and systemize the findings into following themes: (1) teachers' perceptions of implementing the upgraded curriculum; (2) factors that support implementation; (3) factors that impede implementation.

**4.4. Teachers perceptions of implementing the upgraded curriculum**

As mentioned above, the implementation of the upgraded curriculum includes the changes in three main components of the curriculum such as content, assessment system and teaching approaches. These themes were also revealed from the interviews, where teachers expressed their perceptions of how they experience the changes in these components while implementing the new curriculum. In addition, as most of the interviewees were science subject teachers, they also shared their perceptions of teaching in English and regarded this new initiative of trilingual as a part of the upgraded curriculum. Thus, this sub-section is going to present the findings related to the following themes: i) perceptions of upgraded content; ii) perceptions of new assessment; iii) changes in teaching approaches and iv) perceptions of teaching in English.

**4.4.1 Perceptions of the upgraded content.**

All interviewed teachers acknowledged that the upgraded curriculum is aimed to increase the quality of education and prepare students who will be able to contribute to the development of the country in the future. As Aidana (pseudonym), a young math teacher

says: "The main aim of the curriculum is to prepare a well-educated generation that has enough skills and competencies to be competitive with other countries". Another advantage that was recognized by the teachers is an opportunity to develop open-minded students free to express their thoughts and opinions. This feature of the upgraded curriculum was also noted by most school teachers in the survey answers. It's not surprising that the teachers decided to highlight this skill mainly because the old curriculum inherited from Soviet times was focused more on factual knowledge and memorization skills. Other skills that were mentioned by the teachers are critical thinking skills, creative skills, research skills and independent learning. Based on these answers, it can be concluded that all the participants are aware of the goal of implementing the upgraded curriculum.

As for the content of subjects, all the teachers reported that they now have to introduce the learning objectives at the beginning of every lesson that takes approximately five minutes, therefore allowing students to set the learning objectives for the lesson. The students work in order to achieve the learning objectives during the lesson. However, Laura, one of the teachers, stated that "students do not even pay attention to learning objectives".

All science teachers reported that there is a considerable change in learning materials. Laura observed: "Now there is less theory and more practical exercises. The topics that were given on three-four pages of the textbook previously are now condensed into on one page only". Many new teachers seemed to be satisfied with these changes as one of them stated: "Now all necessary information is given in short and it does not take a lot of students' time to read the boring texts", while more experienced teachers concern that the new topics may not be studied deeply.

There is also a change in the format of tasks that have cross-curricular links. Now topics and exercises are developed to be integrated with other subjects. According to Kazakh language teacher, Aiman, she had to recourse to physics or geography teachers due to new content of textbooks that include a lot of tasks and things that they did not know. Aiman also reported that now lessons are more focused on the ability of students to produce information and that less attention is given to the grammatical aspect of the language, that was peculiar to the old curriculum. She says:

Students learn to read graphs and diagrams and describe them in oral or written form. It is good. Students develop their critical thinking and speaking skills, but the grammatical accuracy of the information wishes to be better. We should have more hours on grammar (Aiman).

Overall, from the findings above it can be concluded that teachers understand the benefits of implementation of upgraded curriculum and express positive thoughts about changes in the content of learning materials and tasks that allows students to save their time and enhance knowledge from different perspectives. However, some teachers have concerns about the amount of information provided in the textbooks and grammatical literacy of students' works.

#### **4.4.2 Perceptions of new assessment**

The next distinguishing feature of implementing the upgraded curriculum is the introduction of criterion-based assessment. This new model of assessment evaluates students' performance according to pre-defined criteria and is considered to be more objective and less hurtful rather than an old 5-scale grading system. According to findings, instead of traditional marks (2, 3, 4, 5) teachers have to evaluate daily students' performance using points<sup>2</sup> peer assessment, self-assessment, oral and written feedbacks in

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<sup>2</sup> Some teachers use points to assess students' daily performance. The more points students get, the better their preparedness to the lesson is.

forms of smiles and appraisal words such as 'excellent', 'good' and 'work towards'. However, among eight participants, only two teachers reported that their students are satisfied with such 'grades' in their school record books ("*kundelik*"). The rest of the teachers reported that their students did not understand the meaning and the purpose of *formative assessment* and noticed that their students come unprepared for lessons without doing their home works. "Before students were afraid to get "2" for not doing the homework, but now they declare that there is no such mark" (Aidana). Another more experienced teacher commented:

Now students come to lessons without preparation. The only motivation for students to learn was grading, and most students worked hard to get a good grade. Now they know that there are no more grades and there is nothing to learn for. They prefer to come prepared to summative assessment for unit and get one good mark rather than preparing for every lesson and get smiles that are not counted in the final grade (Karlygash).

This means that students do not realize the importance and significance of daily formative assessment that helps students to reach learning objectives indicated in the curriculum, the achievement of which leads to successful passing of summative assessment for the term. Karlygash's words also show that students are still used to study for the sake of grades, not for the knowledge itself. That is why some teachers expressed their wish to return the old grading system to make their students study.

Not only students and teachers missed the traditional grading system, but also the parents did. One of the teachers reported that parents are not satisfied with the new grading system. According to Aiman:

The most urgent problem for parents is assessment. At all parental meetings, despite the explanatory work on the new curriculum and its components, parents yearn after the old grades such as "5", "4", "3". Because they have witnessed how the absence of

grades discouraged their children from studying despite the exciting content of the tasks and assignments. We send the results of formative assessment to parents, but they still complain that teachers do not grade their children.

This means that parents, as well as students, still do not understand the essence of the upgraded curriculum and criterion-based assessment. It is evident that the feedback written in the students' record book is not an indicator of their children's performance, and that they prefer to see a detailed assessment of knowledge rather than comments of formative assessment. Parents do not recognize that comparing with traditional grades that are fixed and may impact on the final grade, formative assessment helps children to identify the gaps in their studies and work on the weaknesses, therefore, improving children's performance.

One more peculiarity of criterion-based assessment is the introduction of *summative assessment for the unit (SAU) and summative assessment for the term (SAT)* that students have to pass at the end of each unit and term respectively. All teachers expressed positive attitudes towards these forms of assessment as they could grade students based on the provided mark schemes and descriptors. They also reported that students do not neglect these grading procedures and come prepared in order to get a good mark. Most of the teachers affirmed that the results of SAU and SAT reflect the valid knowledge of students if the tasks are developed according to the topics that were covered during the unit and term. Teachers also reported that at the beginning of implementing SAU and SAT, they had to use ready samples of the tasks downloaded from online resources. It turned out that somehow, students had also downloaded these tasks and had the answers of SAU and SAT in advance, which led to unfair assessment and breach of academic integrity. Despite this fact, some of the interviewees are still using ready materials for SAU and SAT for their lessons.

To sum up, the introduction of criterion-based assessment seems to be the most challenging aspect of the upgraded curriculum for teachers. Especially when it comes to formative assessment, the implementation of which complicated daily tracking of students' performance due to the absence of grades. This led to the fact that children began to come unprepared and teachers were not happy with this. However, teachers were pleased with summative assessment as it is evaluated based on the score. The only concern was about the development of summative tasks which some of the teachers found difficult and preferred to use the ready samples from online sources.

#### **4.4.3 Changes in teaching approach**

All teachers reported that the main change in the pedagogy was the change of teacher's role. If before teachers were the central figure of the lesson and were expected to teach and explain everything to students, now teachers play the role of facilitator, the primary duty of whom to direct and encourage students for independent learning.

The findings show that the new role of teachers was not approved by everyone. All less experienced teachers agreed on the effectiveness of the student-centred approach compared to teacher-centred approach. They noticed that now students are more active and given more time to speak and learn independently. They also assert that students enjoy the learning process due to the use of various interactive teaching methods and ICT, which also increases the participation and engagement of students on the lessons. One of the young teachers affirmed that new teaching methods help students to be prepared for real-life situations. As Ayzhan says: "students like roleplays as they have an opportunity to experience the situation before facing it in real-life settings". She also noted that such methods help to develop not only the skills but also human values. Also, the positive opinion about new teaching methods is shared by Zhuldyz, who teaches chemistry in 7<sup>th</sup> grade according to the upgraded curriculum and in 9<sup>th</sup> grade following the old curriculum.



She noticed that her seven graders are more active in the lessons, whereas her nine graders prefer to sit quietly during 40 minutes. She explains the difference in their behaviour as a result of different learning approaches. If the lessons for 7 graders are usually held in the form of competitions or group works and more inquiry-based, the chemistry lessons of 9 graders are more based on the theory that requires teachers' explanation. On the other hand, she also thinks that such situation may take place due to the age of the students. She also admitted that the role of the facilitator is not so tiring for teachers who used to speak without stopping.

On the other hand, there are teachers who support the traditional teaching approach when new information is delivered by teachers while students are listening to them in a receptive mode. According to interview answers, all more experienced teachers believe that it is one way students can learn. As one of the teachers shared:

The theory is very important, and it should be explained by the teacher. However, now, we are required not to explain but direct students to learn through inquiring. How will students understand the new topic, new rules of physics without the teacher's explanation? I do not think that students will learn something without the teacher's explanations (Karlygash).

Another experienced teacher also shared the same concern:

Just simple example. Can your child learn to knead the dough without your instructions? Can a child learn to hold a spoon and eat with it if you do not show how to do it? The same with our students. Students of public schools are not students of lyceums and gymnasiums. It is challenging to teach them something without explanations and instructions (Marzhan).

Thus, experienced teachers refer to different learning abilities of students and affirm that it is difficult to apply new methods in big class sizes. They think that independent learning and student-centred approach is more suitable for schools with selected students such as

NIS, lyceums or gymnasiums where the performance of students is high. Marzhan admitted that she is still a teacher of the Soviet Union who is used to teach using the Shatalov<sup>3</sup>'s methods and Karayev's methods. These methods were also mentioned by other physics teacher Karlygash, who stated: "I conduct my lessons using old teaching methods of Shatalov. These methods are really strong and effective. Students compete with each other solving different levelled problems".

From this, we can understand that teachers started their careers in Soviet times regard theoretical knowledge as the only valid knowledge and believe that students have learned something if they are able to reproduce information automatically through a series of repeated exercises. Because of this, they prefer to use old teaching methods focused on drilling rather than new teaching methods focused on thinking. However, it does not mean that teachers are against the upgraded curriculum. Teachers admitted the benefits of new teaching techniques and expressed their intention to apply them on their lessons, at the same time they worry that the final external assessment of students represented by UNT will assess not thinking and speaking skills but the factual knowledge of students which comes again only through memorization and drilling.

Continuing on the topic of new teaching methods, all interviewees emphasized the use of group work on their lessons. According to their answers, this method was required to be employed in every lesson. They have been even criticized for not dividing students into groups when someone from school administration observed their lessons. They affirmed the effectiveness of this method as it allows every student to be engaged actively in the learning process and develop collaboration skills, but they also stated that it is impossible to use it on every lesson. Moreover, some teachers admitted that group works cause problems in classroom management as students become too noisy during the whole

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<sup>3</sup> Prominent educators of the USSR period.

class and group discussions. Another challenge mentioned by teachers was the fact that less able students continue to be silent during the group discussions. These answers show that teachers have some difficulties in the organization of group work and a fair division of labour within the groups. Besides, it seems like there is a problem of conceptualization of the upgraded curriculum by school administrators who consider the group work as the main tool and evidence of implementing the upgraded curriculum, as they require from teachers to apply it at every lesson.

#### **4.4.4 Teaching in English**

Those science teachers who teach in 7<sup>th</sup> and 8<sup>th</sup> grades have already started to teach their subjects in English partly. They mainly teach in Kazakh and give topical vocabulary and terms in English. It is surprising that all teachers are pleased with this new initiative and consider it as one more opportunity for professional growth. As the teacher with 38 years of experience stated: "I enhanced my knowledge. I have learned so many words" (Marzhan). Even those teachers who were not trained at English courses try to implement English in their lessons when greeting and introducing the new topic. For instance, Aidana, who teaches six graders and has not been yet trained, shares:

One of the advantages of the new curriculum is teaching in English as learners can also develop their language competences. I always greet students in English. I try to give new formulas and units of measurement in English. Students find pronouncing words in English funny, that is why they immediately memorize them.

At the same time, more experienced teachers admit the difficulty of teaching in English. "We want to teach in English, but we still lack speaking skills. We have learned the words by heart, but sometimes we make mistakes in their pronunciation as it is not our native language" (Karlygash). They are used to teach their subjects in Kazakh for so many years, and to switch to the English language of instruction is really challenging for them despite

their enthusiasm. They also reported that this change should be implemented gradually and expressed the resentments towards the demand of school administration to conduct 80%-100% of the lesson in English.

#### **4.5. Factors that support curriculum implementation**

In order to implement the new curriculum, teachers need to be ready and well prepared. Moreover, the application of new practices should be reported at different levels. This sub-section is going to report on the factors that support the implementation of the new reform.

##### **4.5.1 Professional development courses and seminars**

Professional development courses play a significant role in the preparation of teachers for new reform. Six out of eight teachers reported that they had been trained on the teacher training courses on upgraded curriculum organized by National Training Center Orleu and Center of Excellence of NIS. These courses taught them to understand thoroughly the meaning and central aspects of the upgraded curriculum as well as the purpose of its implementation. Also, teachers reported that they learned about new teaching approaches that help to make the tasks in the classroom as meaningful as possible by connecting them with real life. Moreover, the courses helped teachers to overcome the fear of unknown and stress related to the new initiative. As one of the teachers commented: "In the beginning, it was really difficult for me. I did not know what to do. I lost a few kilograms worrying about it. But then I attended several courses, seminars and trainings. They helped me a lot" (Laura). Thus, teachers shared positive comments about training courses, except for one teacher who was not satisfied with the course duration that lasted only one week. She supported her statement that this period was not enough to learn and understand the basics of the new curriculum. She comprehended the aim of the upgraded curriculum only when she started to teach according to it.

Those teachers who haven't been trained on such courses mentioned the seminars and workshops organized by schools and the local state department of education ("gorono"). Attendance of such events allowed them to be acquainted with the peculiarities of the upgraded curriculum and observe how other experienced teachers implement them on their lessons. Teachers asserted that such model lessons and students' outcomes demonstrated there increased their motivation to apply these methods in their classrooms as well. Some of the young teachers said that they started to develop their activities similar to those ones that they had seen in the workshops. For instance, Laura developed a set of activities based on TV programs, while Aidana created an Instagram wall for students' feedback in her classroom. These examples demonstrate teachers' commitment to making their lessons more interactive and exciting for students that consequently leads to the successful implementation of the new reform.

However, not all professional development courses were efficient. A few science teachers complained about English training programs referring to the inadequate preparation of course trainers. They were taught only terms and vocabulary related to their subject, but not the skills of communicating with students. Also, teachers highlighted the ineffectiveness of these courses as they were not exempted from the main work at school, and during nine months, they had to study and work concurrently. They supported their statements by pointing that those teachers, who had been trained for ten months and were released from their school job, have significantly increased their English language competence.

Both professional development courses and seminars served as a platform for sharing the experience. All teachers reported that such training allowed them to meet other colleagues from different schools and discuss with them educational issues related to the

teaching and learning process. Moreover, such meetings contribute to the establishment of professional learning communities that foster collaboration between schools.

#### **4.5.2 Teachers' collaboration**

Not only professional development courses and training organized at the regional and city level can assist teachers in the implementation of the upgraded curriculum. Another supportive factor is teachers' collaboration within the school. All teachers reported that there is a strong collaboration between teachers that is reflected in the form of workshops, mentorship and joint lesson planning.

**Workshops.** As was mentioned before, not all teachers were trained at professional development courses. However, they can learn about the content of those courses through delivering the training sessions in the form of workshops. Usually, newly certified teachers and trainers organize different workshops and master classes, which are very helpful for young teachers.

**Mentorship.** Another form of teacher collaboration is a mentorship program. Usually, more experienced teachers are assigned mentees, whom they should guide and provide methodical support. Such help is highly appreciated by young teachers that allows them to discuss and receive constructive feedback and learn insights of the teaching profession. As one of the young teachers commented: "I got a lot of inspiration from my mentor. When I observe her lessons, I try to keep in mind her teaching style and techniques" (Zhuldyz). It was pleasant to learn that not only assigned mentors, but also other department teachers share their experiences with young teachers. As Aidana shares: "All experienced teachers are always ready to share their knowledge with me".

**Joint lesson planning.** Not only less experienced teachers need methodical support. As the initiation of reform has started recently, teachers still have challenges related to

lesson planning and assessment techniques. In order to solve these issues, teachers prefer to gather and plan the lessons together. Such joint lesson planning helps to clarify learning objectives, cross-curricular links, create success criteria and descriptors for formative assessment.

#### **4.5.3 Practicum in pre-service teacher education**

One of the young teachers, who graduated from university in 2017 and started her teaching career only last year, accentuated the role of practicum at university that she had when she was a fourth-year student. She highlighted the effectiveness of such internship and indicated it as a great tool in the preparation of young teachers for implementation of the upgraded curriculum. As she comments:

For my student internship, I chose NIS as I wanted to know about the format of the lessons in this school. How they are conducted, what teaching techniques are used by teachers. We observed their lessons and witnessed how teaching strategies mentioned in theory are applied in action. We learned how to write the short term lesson plans, how to select the learning objectives and develop success criteria. That is why when I came to school and started teaching, even without professional development courses, I knew the basics of implementing the upgraded curriculum (Aidana).

She also mentioned that she faced challenges in her university practicum comparing with her groupmates, who had their internships in public secondary schools where mainly the old curriculum was applied at those times. However, she was pleased with the outcomes and experience she reached thanks to such work-based learning.

This idea was also supported by more experienced teachers who think that young teachers should be prepared for the upgraded curriculum from the university.

#### 4.5.4 Methodical support

Along with professional competence that is enhanced through the factors mentioned above, one more thing that improves teachers' readiness to implement the new curriculum is methodical support. All interviewed teachers shared their positive attitudes towards online resources such as [smk.nis.edu.kz](http://smk.nis.edu.kz) and [bilimland.kz](http://bilimland.kz). If the first one helps teachers to prepare the lesson plans and find all necessary teaching materials, the following website allows teachers to organize and conduct lessons in the interactive form.

“*Systemno-metodicheskiy kompleks*” (systematical-methodical complex) is commonly referred to as “smk”, contains all necessary materials for primary and secondary school teachers such as educational programs, course plans, methodological recommendations, assessment guidelines, middle term and short term plans, samples of SAU and SAT tasks. It also serves as a discussion platform where teachers from mainstream schools can ask questions of interest to them and get help from NIS teachers regarding lesson planning and criteria based assessment. All teachers reported that they refer to this resource very frequently. Usually, they download ready lesson plans and tasks for SAU and SAT. Despite the positive views, several teachers had some concerns regarding the free access that all mainstream school teachers have to this website, stating that sometimes “teacher-relatives” of students obtain the results of SAU for them.

Science subject teachers also emphasized the helpfulness of *bilimland* that stands for “land of knowledge” (*bilim* – in Kazakh means knowledge), where teachers from mainstream schools can find useful information relating to their subjects, interactive and educational videos, differentiated tasks and other various learning materials. Teachers admitted that students enjoy lessons when it comes to using *bilimland*, as they find the videos very interesting and informative. The website is available to everyone, that is why teachers usually recommend students and parents to use it at home as well.



Participants' answers show that teachers are aware of using online resources and teaching documents, that provides substantial methodical help in the implementation of the upgraded curriculum. Only few of them concerns about the availability of SAU materials, the answers of which sometimes are found from students.

#### **4.6. Factors that impede curriculum implementation**

This sub-section presents the factors hindering the implementation of the upgraded curriculum that was mentioned by teachers in the interviews. Mainly teachers indicated as the obstacles the following factors: a) poor educational resources, b) big size classes and diversity of students, c) d) poor parental involvement, e) lack of time and workload and f) nostalgia of old curriculum.

**Poor educational resources.** In order to support and implement the curriculum, the school should provide appropriate educational support and resources. The interview results show that the provision of educational resources is inferior in secondary school. The first concern of subject teachers is classroom equipment that is outdated and not well maintained to support the learning objectives. Teachers reported that all computers do not work, and due to this they have to use their mobile phones in order to fill the e-journal. The same was about specialized equipment that is considered to be used in Chemistry, Biology and Physics classrooms. According to science teachers, the content of the curriculum requires to conduct a lot of practical works such as experiments and demonstrations in laboratories that they do not have at all. Such situation deprives students an opportunity to perform measurements and observations, collect data and carry out data analysis. Also, teachers reported about the difficulty of applying some of active teaching methods in the classroom due to class sizes and old furniture. The space in most classrooms is filled by students' desks that are hard to move, therefore not allowing easy movement around the

classroom, that consequently leads to inhibition of students' participation in the proposed activities.

The next concerns relate to library and media resources. Participants reported that they have to surf the internet in search of interesting learning materials as the fund of the school library does not provide teachers with sufficient up-to-date literature and educational publications. Even when they find engaging learning activities and worksheets, they cannot print them due to the absence of printers and papers. Teachers have to refer to paid printing services and buy paper for their own money. As for media resources, as was mentioned before all teachers are pleased with the developed media resources such as bilimland agreeing on the efficiency of the given platform. However, they state that they do not have the appropriate technological support to implement these resources in their lessons. Firstly, there is no internet connection in the school, only a few computers, mainly of administrators, have access to the internet. Secondly, teachers complained about the lack of interactive whiteboards and slide projectors. Teachers asserted that only a few classrooms are equipped appropriately and are used solely for open lessons. This means that most teachers cannot effectively use IT equipment in the teaching and learning process.

Teachers have problems not only with media resources but with printed resources as well. Those teachers teaching in 8<sup>th</sup> grades complained about the complexities of the textbooks. As one of the teachers says: "In the textbook of 8<sup>th</sup> grade, there is a topic that is given in the course plan of 10<sup>th</sup> grade of the old curriculum. Consequently, students could not learn that topic" (Marzhan). This problem was also mentioned by another young teacher. This indicates that the tasks in the new textbooks are not appropriate to the age peculiarities of students. Moreover, teachers complained of the frequent updates in the

content of textbooks. "Books change every year. You start to get used to one program, as the second comes. We are so tired from these changes" (Karlygash).

***Diversity and number of students.*** Another hindrance for effective curriculum implementation is big size classes and diversity of students. Average, there are 28-30 students per one teacher in each classroom, which are divided into two groups only on Russian, English, Physical Education and Computer Science lessons. All science teachers asserted that their subjects are more complicated and require more hours and division into groups. As one of the physics teachers says:

How can we teach science to 30 students at once? If the first one stands, the second student sits. If someone has written the topic into his copybook, someone has just opened the book. Even if there is a topic written on the blackboard, some students are keeping asking the topic of today's lesson. And we cannot blame them because they are just children. We have to repeat them one thing several times. It would be more effective if they are split into two groups (Marzhan).

Teachers also shared that couple years ago they had an experiment in teaching physics. All 11 graders were divided into two groups and learned physics separately. This experiment had positive outcomes as there was a significant increase in students' performance. Unfortunately, they had to stop this practice because of the lack of teachers and classrooms. Teachers also affirmed that they addressed this suggestion to authorities several years ago. However, no implications have been carried.

In addition to the big number of students in each class, teachers also mentioned about the diversity of their abilities and social backgrounds. As one of the teachers shared:

Students of secondary schools are not the same as students of lyceums or gymnasiums. Among them, there are students from different backgrounds and with different abilities, "inclusive children", low performing students, children with high order thinking skills...and it is difficult to direct all 28 students sitting in front of you

without any explanation. Only 4-5 students learn something from our lessons, and the rest of them are just sleeping (Karlygash).

This demonstrates that teachers challenge to teach big size classes consisting of students with different abilities. This may mean that teachers need more support in differentiated learning that allows finding an individual approach to every student. However, taking into account the learning styles of each student, then 40 minutes are not enough to approach each of them.

Different level of English proficiency was also mentioned by science teachers as an obstacle. Although teachers are enthusiastic about the new practice of conducting the lesson in English, they affirmed that there is no output from students as they cannot speak English well. There are even children who struggle to speak in Kazakh, let alone speaking English. As one of the young teachers shares:

Students are not ready. It is very challenging for them to study such difficult subject as chemistry in English. I have about ten students who moved from other countries such as Iran and Afghanistan. It is even difficult to write in Kazakh for them. As for English and Russian, they do not know them at all.

Also, as the main reason for students' low English proficiency, teachers consider inefficiency of English lessons. They reported that English lessons are delivered in Kazakh and that there is no English environment created on the lessons. Teachers think that implementation of the trilingual policy will be successful if the quality of English lessons is improved.

***Poor parental involvement.*** Getting education is a trilateral process involving the active participation of teachers, students and parents as well. Parents play a significant role in the life of every child and should be directly involved in their educational process.

However, the answers of participants demonstrate that nowadays, parents are very busy and pay less attention to the education of their children. They shifted full responsibility for their children's education onto teachers and consequently did not control their studies at home. As one of the teachers commented: "Now parents do not sit at the table with their children discussing their school life. On the contrary, they ask children to sit quietly to drink their cup of tea and relax after a long working day" (Karlygash). Teachers also reported that now parents prefer to give their children to various paid educational centres as they do not understand the new program and cannot help their children. Also, one of the young teachers stated that they don't receive any support from the parents. The last ones prefer to blame teachers in low performance of their children. There was even an incident when one of the parents, who was also a teacher of another school, got the SAU answers from smk for her son. Teachers, especially young ones, take such action as disrespect for their profession and regard it as a threat to the social status of teachers.

***Lack of time and workload.*** According to the upgraded curriculum, the duration of the lesson was decreased from 45 minutes to 40. All interviewed teachers admitted that this time is not enough to cover one lesson and achieve its learning objectives:

Physics is strongly connected with real life. Before I used to start my lessons by explaining experiences from everyday living and gradually connect them with rules of physics. Now, according to last changes first we should discuss learning objectives, then five minutes - for a new topic, view one example of the problem and find its solution...plus we have English now. We should give all new terms in English and ask them from students...and then the end of the lesson. Only more able students are able to afford the new topic during 40 minutes, the rest of students are not" (Marzhan).

Also, during this period, teachers are required to carry formative assessment and give feedback in the oral or written form to every student. Also, teachers should find time to

approach to less able students and provide individual support. Even the division of thirty students into groups takes a quite long time. In this regard, participants expressed their wishes to implement the practice of NIS schools where, science subjects are conducted in the form of a double lesson, the overall duration of which takes 80 minutes. They also think that the number of hours allocated for science subjects should be increased. As they comment: "Although they [policymakers] say that now it is an era of science, the number of teaching hours the science subjects is too short".

Teachers also reported about the shortage of time for lesson preparation. As was mentioned before, the school staff is lacking learning resources and have to search for various tasks and exercises appropriate to the topic and learning objectives. As a result, teachers spend a lot of time to find worksheets and handouts or develop them by themselves, to print and then cut for further distribution to students. All this increased the workload of teachers, who rebel: "It was said that the amount of paperwork would be decreased, however, it has been increased, as we have to write and print 4-5 pages of the lesson plan, activity worksheets, worksheets for assessment, rubrics for parents. Is it decreased paperwork?" (Marzhan). On top of that, there are frequent inspections from school administration and from the local educational state department, who demands to implement the latest teaching techniques and speak English on the lessons. One of the physics teachers described her current state using a physical phenomenon:

Let's take water as an example. The level of pressure on the surface of water differs from the pressure below the surface. Water pressure increases with the depth, and the greatest pressure falls from the top on the bottom of the water. Now we are in the bottom, under the greatest pressure (Marzhan).

Another teacher says: "I am waiting until the age of retirement comes, then I will leave the school" (Karlyagsh). These statements show that teachers are pressed by educational

authorities that want to see the immediate outcomes of curriculum implementation. Such pressure affects the emotional state of teachers and decreases their motivation to work.

*The nostalgia of the old curriculum.* Although all teachers comprehend and accept the benefits of the upgraded curriculum such as developing different skills in students and applicability of knowledge in real life, during the interviews all experienced teachers evoke their memories of old practices. They stated that before the teaching approach was better, and the content of the lesson was meaningful. During 45 minutes they managed to explain the new topic, to demonstrate it in practice, solve problems by levels. They also admitted the content of old textbooks, which were issued by Russian authors like Kirik and Gelfgat, were more interesting for students as they contained the tasks and problems differentiated by complexity into three levels. These books presented a wide range of simple and challenging tasks, which made them possible to use at elective courses and in preparation for Olympiads.

As was mentioned before teachers are still in favour of old teaching approaches developed by Shatalov and Karayev, which were also focused on the differentiation of students according to their abilities. According to teachers, they are still using these books when preparing students for Olympiads and admission to University. All of these students show excellent results. Also, teachers recalled to their childhood memories of their physics lessons and told about engaging laboratory classes and experiments that they had during Soviet times. This was unexpected finding for me, as the education of Soviet-era was mostly criticized for being too theoretical but not practical, and that differentiation of students was not taken into account during the teaching and learning process.

Teachers also reported about students who before were afraid to fail and repeat the grade again, who strived to learn and gain good knowledge in order to get educational

scholarships and enter the university, who just wanted to become good engineers. However, now student neglect school, subjects and teachers. And they cannot do anything against this even to put "2" as an indicator of their performance. In this case, educational authorities will blame not students but the teacher in her low professional competences and ask her or him to report on the work that she or he has done with a student. To avoid such accountability procedures, teachers have to put false marks and raise the percentage of students' performance.

#### **4.7. Summary of the chapter**

To sum up, this chapter analyzed and interpreted the quantitative and qualitative data related to the attitudes of secondary school teachers towards the implementation of the upgraded curriculum, their perceptions and beliefs about the changes in curriculum content, assessment and teaching approach. The chapter also examined the supportive factors in curriculum implementation and the significant impediments that teachers face during reform implementation. According to survey results, most teachers have quite positive beliefs about new reform. Only a few statements demonstrated negative attitudes of teachers towards assessment. The survey answers were examined more deeply in the qualitative part of the study, which, along with positive attitudes, revealed the major concerns that teachers have relating to the new reform. It was found that more experienced teachers are less satisfied with the changes in the content and pedagogy while less experienced teachers see only opportunities in the upgraded program. All teachers regardless of the years of experience, reported about challenging nature of criteria-based assessment. The findings also show that all teachers are well prepared for the realization of the new curriculum. However, the obstacles in the form of poor educational resources, diversity and big number of students, poor parental involvement, memories and pressure from the top constrain their enthusiasm to implement the new changes. Moreover, these



challenges, poor student outcomes and increased workload lead to emotional burnout of more experienced teachers, who are just waiting until their retirement.

All these findings will be discussed and correlated with the reviewed literature in the next chapter.

## **Chapter 5: Discussion**

### **5.1. Introduction**

In the previous chapter, I described the findings drawn from the survey and interviews. The purpose of this chapter to interpret the findings of the study through analyzing them in relation to the reviewed literature and research questions.

### **5.2. The nature of the upgraded curriculum implementation.**

Similar to reviewed literature (Amogshie-Viglo, 2014; Kelly, 2009;) Kazakhstan is also experiencing curriculum change in the system of secondary school to correspond to the requirements of the changing society. According to teachers, the modern world requires people to have more skills than before, and that is why it is essential to develop in students the skills of XXI century such as critical thinking, communication, research and collaboration skills that are emphasized within the framework of the upgraded curriculum. Particularly teachers highlighted the development of communication skills in students stating that now learners express their thoughts freely in comparison with the previous generation educated according to the old curriculum. This finding is in the lines of earlier literature that criticized the previous curriculum influenced by Soviet legacy for being rigid and knowledge-based (Fimyar, 2014; OECD, 2014 Steiner-Khamisi & Silova, 2008; Yakavets, 2014). However, the most striking result to emerge from the data is that even in Soviet times teachers used practical work in the laboratories and differentiated students according to their abilities, which contradicts the previous studies (Fimyar, 2014; OECD, 2014 Steiner-Khamisi & Silova, 2008; Yakavets, 2014) stating that Soviet education did not teach children to apply their knowledge in real life and that it was inaccessible for low performing students.

Results of the study also revealed four main changes that teachers have experienced since implementation of new reform: 1) changes in the content; 2) changes in the

assessment; 3) changes in pedagogy and 4) introduction of trilingual education. This tells us about the complex nature of the upgraded curriculum that corresponds to the description provided by Fullan (2007). He describes the nature of curriculum implementation as a multidimensional process manifested through changes in the learning materials, teaching approaches and teachers' beliefs. If changes in the content of the upgraded curriculum can be related to new learning materials, alterations in assessment, pedagogy and introduction of trilingual education can pertain to changes in the teaching approach. As for the third dimension represented by modification of teachers' beliefs the results of the survey and interviews revealed that not all teachers have positive perceptions of the upgraded curriculum which means that their attitudes have not been changed yet. Teachers reported that they apply new teaching methods and learning materials as they are required to do so, which confirms that teachers still play the role of "technical deliverers of guidelines and schemes" (Goodson, as cited in Hargreaves et al, 2000, p.23). However, it does not mean that their perceptions have been changed as well. Such behaviour of teachers can be explained as "reactive change" (Newton & Tarrant, 1992) that implies the implementation of change as a response to demands coming from the authorities.

The fact that not all teachers have changed their attitudes towards the new reform indicates that implementation of the upgraded curriculum went only through two dimensions of change (Fullan, 2007; Sparkes, as cited in Lynch, 2014). According to Fullan (2007), and Sparkes (as cited in Lynch, 2014), unless all three components are modified, the change in the curriculum will be superficial only. On the other hand, we cannot state that changes taking place in the secondary schools are only surface change, as there were also teachers who had positive perceptions of the upgraded curriculum. Mainly, these were teachers who had from 1 to 15 years of teaching experience. During the interviews, these teachers excelled in a high commitment to implementing the new

practices within their classroom. This means that along with reactive teachers, there are also proactive teachers, who are enthusiastic in the improvement of teaching and learning process (Newton & Tarrant, 1992).

We should also take into account that it is only the third year since the phased implementation of the curriculum has started, which is not an extended period. According to reviewed literature, successful implementation of any reform takes longer time unless people understand the meaning of change (Fullan, 2007; Newton & Tarrant, 1992).

### **5.3. Teachers perceptions and factors influencing on their attitudes towards the implementation of the upgraded curriculum**

All findings were interpreted through Guskey's model of change in teachers' attitude that guided this research. According to Guskey (1989), change in teachers' perceptions is a linear process that is based on the set of outcomes. To change the attitude, first teachers need to go through professional development and raise their qualifications. Then they should apply new practices within their classrooms and observe if these new classroom experiences lead to positive results in students' outcomes, that can be reflected either in their final scores or in their behaviour during the lessons. Finally, having witnessed the positive improvements in students, teachers will be able to change their attitudes.

However, not all teachers participated in my study suited this model. The model was applicable only to more experienced teachers who had been trained at professional development courses and practising new methods. Most of these teachers reported that due to a new assessment system, which does not evaluate the performance of students, except the results of SAU and SAT, student's preparedness to the lessons dropped. Consequently, this led to the negative outcomes in students' performance that was a great concern to teachers, therefore, impeding the change in teachers' attitude towards the implementation

of the upgraded curriculum. Also, the diversity of students' abilities and the big number of students in one class did not allow to implement the content of the upgraded curriculum effectively, that again led to poor students' performance. However, students' performance was not the only reason of negative attitudes of teachers. Another factor that constrained the change in their beliefs was connected with the student-centred approach, where mostly learners were supposed to be encouraged to study independently. More experienced teachers were mainly accustomed to teacher-centred approach and regarded it as the only effective way to deliver the knowledge. This fact refers to the pedagogical legacy of teacher that was described by Fullan (2017) as one of the factors disrupting the change in the teachers' perceptions.

On the other hand, in my findings, there were less experienced teachers who still had not been trained at professional development courses, but despite this fact, they had positive beliefs in the upgraded curriculum. Their positive reaction to the change was based upon the new role of teachers as facilitators of learning process prescribed to them by the upgraded curriculum as well as positive students outcomes followed from their increased active participation during the lessons. It was interesting that less experienced teachers were pleased with their new role while more experienced teachers regarded it as an inefficient teaching approach. At the same time, less experienced teachers expressed their wishes to be trained and enhance their pedagogical competence and understand the reform purpose better in order to feel themselves more confident in the implementation of the upgraded curriculum. The present findings also support Okello and Kagoire (1996), who concluded that successful curriculum implementation requires well-trained teachers able to comprehend the sense of the change. Regarding the preparedness of teachers, the findings also revealed that even some experienced and trained teachers were not sure in their skills due to ineffective professional development courses that they had been trained

at. The similar results were obtained in the study conducted by Ngussa, Waiswa and Makewa (2017) on curriculum change in Tanzania where teachers were not ready for new reform because of incompetent teacher training.

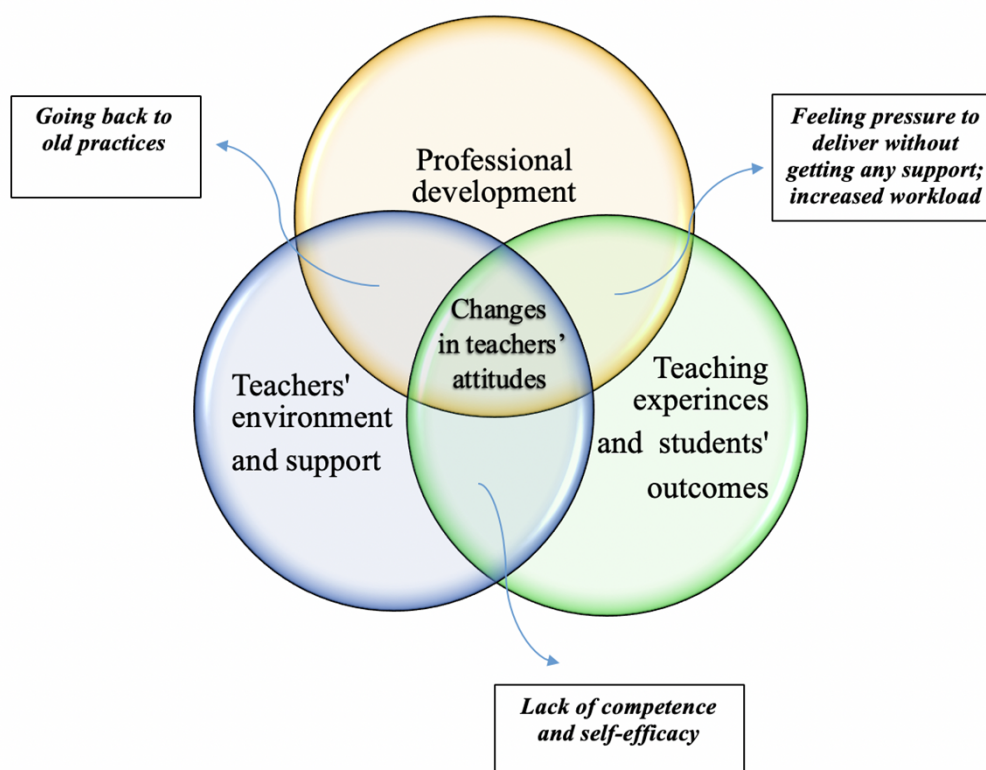
Among participants, there were also trained teachers effectively implementing new practices and getting good results from students, but complaining about the lack of educational resources and support from administration. As a result, these teachers had increased workload because they had to spend too much time in search of necessary learning materials for their lessons. Besides, teachers were tired from the pressure from school administration demanding to implement the new practices on every lesson. According to previous studies (Huang & Waxman, 2009; Jepson & Forrest, 2006; Pearson & Moomaw, 2005; Pristley, 2015; Suyundikova & Zhaksylykova, 2018; Tsui & Cheng, 1999; Xiao, 2013), such working conditions lead to burnout and lower commitment of teachers.

As we can see, teachers' perceptions of implementing the upgraded curriculum split into two. If some teachers had positive beliefs regarding new practices, some teachers expressed negative concerns about the implementation of the upgraded curriculum. The different reaction of teachers can be caused by the factors that impede implementation of the upgraded curriculum, which are not taken into account in Guskey's model. In this regard, the research findings support the criticism came from Clarke and Peter (1993) against the Guskey's model stating that there are more interacting factors like knowledge, professional experiences, the outcomes, sources of information and support. The scholars also took into account the reflective nature of teachers that is also not mentioned in Guskey's model. However, the modified model of Clerke and Peter (1993) also neglect the challenges that teachers face in the reform implementation. The teachers who participated in my study stated if all obstacles were addressed and solved, the implementation of the

upgraded curriculum would be easy for them. For teachers, the upgraded curriculum is associated with an empty house without any living conditions. First, there is a need to create appropriate conditions for curriculum implementation, and only then launch the reform.

Having analyzed all the findings and compared them with the Guskey's model of teachers' change, I developed the new model of change in teachers' attitude based on the perceptions of secondary school teachers in Aktau (Figure 3). This model explains how change occurs in teachers' attitudes towards the implementation of the upgraded curriculum. According to findings of this study, teachers perceptions and attitudes are determined by three main components which are: 1) professional development, that includes professional competence and skills of teachers; 2) teachers' environment and support, that stands for all educational resources and support both methodical support and

*Figure 3. Model of change in teachers' attitudes based on the perceptions of secondary school teachers in Aktau*



form administration; and the last one 3) teaching experiences and students' outcomes that include daily practices, experiments of teachers reflected in students' performance and behaviour. All these components are closely interconnected with each other. Teachers will change their attitudes if the change occurs in all three components. If one of the components is not established, it will lead to adverse outcomes that affect the change in teachers' attitudes. For instance, if teachers are well trained and have successfully implemented the new practices demonstrating the improvement in learners' performance, but at the same time they do not get any support from administration or lack appropriate learning resources, this will result in an increased workload and pressure on the teachers. If teachers are well trained and provided with all necessary support and learning materials, but they fail in applying new methods and do not see any students' improvements, they will go back to their old practices. If the teachers have enough educational resources and effective new practices but not enough qualifications, in this case, teachers will feel the lack of pedagogical competence and self-efficacy. So, every component plays a vital role in the establishment of positive attitudes of teachers towards educational change. Therefore, the challenges occurring in one of the components should be addressed immediately.

#### **5.4 Summary of the chapter**

This chapter discussed the main findings described the nature of upgraded curriculum implementation in a secondary school as well as teachers' perceptions of the implementation process. The chapter also discussed the factors affecting change in teachers' attitudes through the conceptual framework of Guskey's model of teachers' change. The study showed consistency with the reviewed literature considering the nature of curriculum implementation and teachers' role in this process and some of the factors supporting and impeding the implementation of the curriculum change such as



preparedness of teachers, teachers' environment, and teachers' legacies. However, the main conceptual framework that was employed to guide this study did not correspond to the research findings due to impeding factors that were not regarded in Guskey's model. As a result, the new model of change in teachers' attitude was developed based on the research findings.

## **Chapter 6: Conclusion**

### **6.1. Introduction**

This chapter summarizes the current study on teachers' attitudes towards the implementation of the upgraded curriculum in one of the secondary schools in Aktau. The purpose of the research was to examine secondary school teachers' perceptions of the upgraded curriculum and factors influencing the change in their attitudes towards its implementation. The final chapter includes three sections. The first section provides the overall overview of the results related to research questions. The second section describes the implications, whereas the third section offers limitations of the study and suggestions for future research.

### **6.2. Revisiting research questions**

#### **6.2.1. How and to what extent teachers are satisfied with new practices related to the upgraded curriculum?**

According to survey results, most teachers are satisfied with new practices implemented within the framework of the upgraded curriculum. They are aware of the purpose of the new reform and have enough competences to teach according to the new curriculum. Teachers have quite positive attitudes towards the change in the content of the upgraded curriculum. However, few statements on assessment demonstrate the adverse attitudes of teachers and increase in workload despite the provided methodical support and assessment guidelines that were admitted by teachers as a helpful tool in reform implementation.

### **6.2.2. What are teachers' perceptions of implementing the upgraded curriculum?**

Teachers' perceptions of the upgraded curriculum vary depending on the teaching experience of educators. If less experienced teachers have more positive attitudes towards the changes in the content and teaching approach implemented within the framework of the upgraded curriculum, more experienced teachers express their great resentments against these changes stating that their previous practices were more beneficial in regard of teaching and learning process.

The findings also show that the most challenging component to apply is a criterion-based assessment that is misunderstood and misinterpreted by all stakeholders.

Surprisingly all science teachers have positive attitudes towards trilingual education according to which they should instruct the lesson in English. Despite the lack of speaking skills, teachers still regard it as an opportunity for the professional growth of teachers and the opportunity to enhance the language proficiency for students.

### **6.2.3. What factors influence teachers' attitudes towards the upgraded curriculum?**

The study found that changes in teachers' attitude towards the upgraded curriculum occur due to three main components that are professional development of teachers, teachers' environment and support and teaching experiences reflected in student outcomes. The factors that impede implementation of the upgraded curriculum such as lack of educational resources, diversity of students, big class sizes, poor parental involvement, lack of time and increased workload, and nostalgia of old practices lead to inappropriate establishment of one of the components that consequently change the attitude of teachers to the negative side, therefore constraining the successful curriculum implementation.

Based on the perceptions of secondary school teachers in Aktau, there was developed a model of change in teachers attitude.

### **6.3. Research implications and recommendations**

This study in the first step has gone some way towards enhancing our understanding of teachers' perspectives on the upgraded curriculum implementation that is going on all over Kazakhstan and is considered as the major curriculum reform implemented in the post-Soviet time. Given the topicality of the research, this study presents several implications and recommendations for policymakers and schools:

- To ensure the provision of educational resources. Most teachers reported that the lack of educational resources dampens their enthusiasm for implementing the upgraded curriculum. There is a need to update classroom furniture to be suitable to apply new teaching methods so that learners could move their desks to arrange the group work during the lessons. Also, schools should ensure the availability of computers, printers, interactive whiteboards and projectors in every classroom so that teachers could use them during the lessons.
- To divide students into two groups in science subjects as it is practised at NIS schools. Teachers reported about the difficulty to conduct lessons in big size classes. Division of students into two groups can be a perfect solution to this problem.
- To include the course of the upgraded curriculum in pre-service education. Based on the experience of one of the beginner teachers, it is suggested to introduce the course of the upgraded curriculum at university so that new teachers will be ready for new practices. This suggestion was also supported by more experienced teachers of the school.

- Gradual implementation of trilingual education. Despite the positive attitudes of teachers towards the trilingual education, teachers think that this initiative should start its gradual application from the first grade. Only thus, teachers, as well as learners, will be ready to speak fluently in English. But now they are not prepared.
- To promote the parent-school relationship. The findings revealed that parents are less interested in the studies of their children due to the misunderstanding of the upgraded curriculum that may cause conflicts between teachers and parents. It is suggested to organize more informative meetings where all teachers and parents could participate together and discuss the current educational issues.

I believe that the results of this study may improve the knowledge about the nature of curriculum implementation and the process of change in teachers' attitudes.

#### **6.4. Research limitations**

This research clearly has some limitations. Firstly, the findings might not be representative of other school teachers' perspective throughout Kazakhstan as it was conducted only in one school. The holistic picture is thus still incomplete. That is why it is suggested to conduct large-scale research that will further inform the implementation of the upgraded curriculum country-wide.

Secondly, this study considered only teachers' perspectives concerning the implementation of the upgraded curriculum, while the realization of new reform involves other key figures such as school principal, representatives of the state department of education and curriculum developers, who were not considered in this study. For further research, exploring the views of other stakeholders of the educational process may also be advantageous and constructive in establishing the broader picture of curriculum implementation.

Thirdly, the findings mostly present the perceptions of science teachers, which may also create a threat to the validity of the results. Six out of eight interview participants were teachers of science subjects such as chemistry, biology, physics and math. For future studies, it is suggested to increase the sample of teachers representing humanity subjects and examine their perspectives on curriculum change.

And finally, the model of teachers' change developed in this study may be not clear for the audience due to its novelty. We hope that future research will prove the model of change in teachers' attitudes.

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## Appendices

### Appendix A

#### Introductory letter from NUGSE

Ақтау қалалық  
білім бөлімінің басшысы

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Құрметті \_\_\_\_\_

Назарбаев Университеті Жоғары білім беру мектебі Қазақстан Республикасының білім беру саласына пайдасы және ықпалы зор дүниежүзілік үздік үлгілерге сай білім беру мен ғылыми зерттеу жүргізуді мақсат етеді. Назарбаев Университеті Жоғары білім беру мектебінде жүзеге асырылатын магистратура мен докторантура бағдарламалары бойынша білім алатын студенттер болашақта Қазақстан Республикасы білім беру мекемелерінде жұмыс істеп, мектепке дейінгі, орта және жоғары білім беру салаларында жоғары деңгейде үлес қосатын болады.

Біз осы хат арқылы сізден Назарбаев Университеті Жоғары білім беру мектебінің магистратура студенті Суюндиқова Гүлден Савитовнаның өзінің «Қазақстанның жаңартылған білім беру мазмұнын енгізу: мұғалімдердің көз-қарасы» тақырыбы бойынша Ақтау қаласы \_\_\_\_\_ атындағы №\_\_\_\_ орта мектебінде ғылыми зерттеу жұмысына келісім беруіңізді сұраймын. Аталған магистратура студенті мәлімет жинау жұмысын 2019 жылдың қаңтар-ақпан аралығында жүргізеді.

Біз аталған студенттің өз зерттеу жұмысын жоғары деңгейде өткізетініне және осы зерттеу Қазақстан Республикасының білім беру саласының одан арғы дамуына үлесін тигізетініне сенеміз. Жоғарыда аталған ғылыми зерттеу жұмысын жүзеге асыру алдында Назарбаев Университеті Жоғары білім беру мектебінің комиссиясының шешімімен бекітіледі.

Болашақта біздің арамыздағы ынтымақтастық күшейе беретініне үміттенемін.

Құрметпен,  
Назарбаев Университеті Жоғары білім беру мектебі деканының орынбасары  
Jason Sparks

## **Appendix B**

### **Survey guide**

Dear Respondent,

You are invited to participate in this research project aiming to explore teachers' perceptions of implementing the updated curriculum. Your participation in this research study is voluntary. You may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time.

The procedure involves filling an online survey that will take approximately 30-40 minutes. We will do our best to keep your information confidential. All data is stored in a password protected electronic format. To help protect your confidentiality, the data filled in the survey will be coded.

The results of this study will be used for scholarly purposes only. If you have any questions about the research study, please contact the phone 708 6166841.

#### **Research title:**

Teachers' attitudes toward implementation of the updated curriculum in one of the secondary schools in Aktau

**Research question:** How and to what extent teachers are satisfied with new practices related to the updated curriculum?

#### **Sample of survey questions:**

1. Indicate your gender.
2. What subject do you teach?
3. What grades do you teach?
4. How many years of experience do you have?
5. What are the strengths of the updated curriculum?
6. What are the weaknesses of the updated curriculum?
7. The content of updated curriculum gives an opportunity to develop more skills compared to old one.
8. The content of subjects is appropriate to achieve the aims and objectives of the curriculum.
9. The number of lesson hours is appropriate to achieve the aims and objectives of the curriculum.
10. The content of the new programme is interesting for most students.

**Сауалнама нұсқаулығы**

Құрметті жауап беруші,

Сіздерді мұғалімдердің жаңартылған оқу бағдарламасын енгізу туралы ойларын зерттеуге бағытталған зерттеу жобасына қатысуға шақырамыз. Сіздің зерттеу жұмысына қатысуыңыз ерікті түрде екенін хабарлаймыз. Зерттеу жұмысына мүлдем қатыспауыңызға да құқыңыз бар. Егер сіз осы зерттеу жұмысына қатысуды шешсеңіз, кез-келген уақытта зерттеу жұмысына қатысу туралы келісіміңізді кері қайтаруға құқыңыз бар екенін хабарлаймыз.

Бұл процедура шамамен 30-40 минуттай онлайн-сауалнаманы толтыруды қамтиды. Біз сіздің мәліметтеріңізді құпия түрде сақтау үшін бар күшімізді саламыз. Барлық деректер парольмен қорғалған электрондық форматта сақталады. Сіздің құпиялылығыңызды қорғауға көмектесу үшін сауалнамада толтырылған деректер кодталады.

Зерттеудің нәтижелері ғылыми мақсат үшін ғана пайдаланылады. Зерттеу туралы сұрақтарыңыз болса, 708 6166841 телефонына хабарласыңыз.

**Зерттеу тақырыбы:** Ақтаудағы жалпы білім беретін мектептерінің бірінде жаңартылған оқу бағдарламаласын енгізу бойынша мұғалімдердің көзқарасы

**Зерттеу сұрағы:** Мұғалімдер жаңартылған оқу бағдарламасына байланысты жаңа әдістермен қалай және қаншалықты қанағаттанған?

**Сауалнаманың үлгі сұрақтары:**

1. Сіздің жынысыңызды көрсетіңіз.
2. Сіз қандай пәннен сабақ бересіз?
3. Сіз қандай сыныптарды оқытасыз?
4. Сіздің тәжірибеңіз қандай?
5. Жаңартылған оқу бағдарламасының артықшылықтары қандай?
6. Жаңартылған оқу бағдарламасының қандай кемшіліктері бар?
7. Жаңартылған оқу бағдарламасының мазмұны ескіге қарағанда көбірек дағдыларды дамытуға мүмкіндік береді.
8. Сабақтың мазмұны оқу жоспарының мақсаттары мен міндеттеріне қол жеткізу үшін жарамды
9. Оқу сабақтарының мақсаттары мен міндеттеріне жету үшін сабақ сағаттарының саны қолайлы.
10. Оқу бағдарламасының мазмұны студенттердің көпшілігі үшін қызықты.

## Appendix C

### INFORMED CONSENT FORM

#### **Teachers' attitudes toward implementation of the updated curriculum in one of the secondary schools in Aktau**

**DESCRIPTION:** You are invited to participate in a **research study** that explores teachers' perceptions about opportunities and drawbacks of implementing the updated curriculum in the mainstream school. Through your participation, I hope to know more about teachers' experiences and challenges in the implementation of new reform. You will be interviewed two times in a place convenient for you. During the interviews, I would like to ask some questions about implementation of the updated curriculum in your school. All data will be tape-recorded and be destroyed once I have successfully completed all requirements of my Master's program.

**TIME INVOLVEMENT:** Your participation will take approximately *one hour*

**RISKS AND BENEFITS:** There are no potential risks associated with this study since you will not be asked any sensitive questions and you will not be identified by your name in the study, nor will your school be identified. However, there will be possibility of your identification by people who work closely with you due to the small number of participants. Be sure, that the data will not be available to the administration of your school and no one except me and my supervisor will have an access to all raw data collected during the interview.

You may not benefit directly from the study, but the information gained may assist both researchers and educational professionals to better understand teachers' perspectives on the implementation of new curriculum reform. Your decision whether or not to participate in this study will not affect your employment in the school.

**PARTICIPANT'S RIGHTS:** If you have read this form and have decided to participate in this project, please understand your **participation is voluntary** and you have the **right to withdraw your consent or discontinue participation at any time. The alternative is not to participate.** You have the right to refuse to answer particular questions. The results of this research study may be presented at scientific or professional meetings or published in scientific journals.

#### **CONTACT INFORMATION:**

**Questions:** If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, you may contact:

- the principal researcher of this study: Gulden Suyundikova, gulden.suyundikova@nu.edu.kz, phone number: +77086166841;
- the Master's Thesis Supervisor for this work: Duishon Shamatov, duishonkul.shamatov@nu.edu.kz, phone + 7 7172 709364;
- the NUGSE Research Committee if I wish to speak to someone independent of the research team at gse\_researchcommittee@nu.edu.kz, +7 7172 709359.

Please sign this consent form if you agree to participate in this study.

- I have carefully read the information provided;
- I have been given full information regarding the purpose and procedures of the study;

- I understand how the data collected will be used, and that any confidential information will be seen only by the researchers and will not be revealed to anyone else;
- I understand that I am free to withdraw from the study at any time without giving a reason;
- With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**The extra copy of this signed and dated consent form is for you to keep.**

## **ЗЕРТТЕУ ЖҰМЫСЫ КЕЛІСІМІНІҢ АҚПАРАТТЫҚ ФОРМАСЫ**

### **Ақтаудағы жалпы білім беретін мектептерінің бірінде жаңартылған оқу бағдарламасын енгізу бойынша мұғалімдердің көзқарасы**

**СИПАТТАМА:** Сіз орта мектепте жаңартылған оқу бағдарламасын енгізу мүмкіндіктері мен кемшіліктері туралы мұғалімдердің көзқарастарын зерттеуге бағытталған зерттеу жұмысына қатысуға шақырылып отырсыз. Сіздердің қатысуыңыздың арқасында жаңа реформаны жүзеге асыру кезінде мұғалімдердің тәжірибесі мен қиындықтары туралы көбірек білуге үміттенемін.

Сіз екі жеке сұхбатқа қатысасыз, сұхбаттар өзіңізге ыңғайлы уақытта және ыңғайлы жерде өткізіледі. Сұхбат кезінде мектепте жаңартылған оқу бағдарламасын енгізу туралы бірнеше сұрақ қойғым келеді. Барлық деректер үн таспаға жазылады және менің магистр бағдарламамның барлық талаптарын сәтті орындағаннан кейін жойылады.

**ӨТКІЗІЛЕТІН УАҚЫТЫ:** Сіздің қатысуыңыз шамамен *бір сағат* уақытыңызды алады.

### **ЗЕРТТЕУ ЖҰМЫСЫНА ҚАТЫСУДЫҢ ҚАУІПТЕРІ МЕН АРТЫҚШЫЛЫҚТАРЫ:**

Сізге шетін сұрақтар қойылмайтындықтан, сондай-ақ сіздің және мектептің аты еш жерде көрсетілмейтіндіктен сіз үшін аталмыш зерттеуге қатысудың әлеуетті қаупі жоқ. Дегенмен, зерттеу қатысушыларының саны аз болғандықтан, сізбен бірге жұмыс істейтін адамдардың жеке басыңызды анықтау ықтималдығы бар. Сұхбат барысында жиналған деректер мектеп әкімшілігіне қолжетімсіз болуына, тек қана негізгі зерттеуші мен оның ғылыми жетекшісіне ғана қолжетімді болатындығына сенімді болыңыз.

Сіз зерттеуден тікелей пайда таба алмайсыз, бірақ алынған ақпарат жаңа зерттеушілерді реформалауды енгізу бойынша мұғалімдердің көзқарастарын жақсы түсіну үшін зерттеушілер мен білім беру мамандарына көмектесуі мүмкін. Бұл зерттеуге қатысу немесе қатыспау туралы шешім сіздің мектептегі жұмысыңызға әсер етпейді.

**ҚАТЫСУШЫ ҚҰҚЫҚТАРЫ:** Егер Сіз берілген формамен танысып, зерттеу жұмысына қатысуға шешім қабылдасаңыз, Сіздің қатысуыңыз **ерікті** түрде екенін хабарлаймыз. Сонымен қатар, **қалаған уақытта айыппұл төлемей және сіздің әлеуметтік жеңілдіктеріңізге еш кесірін тигізбей зерттеу жұмысына қатысу туралы келісіміңізді кері қайтаруға немесе тоқтатуға құқығыңыз бар. Зерттеу жұмысына мүлдем қатыспауыңызға да толық құқығыңыз бар.** Сондай-ақ, қандай да бір сұрақтарға жауап бермеуіңізге де әбден болады. Бұл зерттеу жұмысының нәтижелері академиялық немесе кәсіби мақсаттарда баспаға ұсынылуы немесе шығарылуы мүмкін.

### **БАЙЛАНЫС АҚПАРАТЫ:**

**Сұрақтарыңыз:** Егер жүргізіліп отырған зерттеу жұмысының процесі, қаупі мен артықшылықтары туралы сұрағыңыз немесе шағымыңыз болса, келесі байланыс құралдары арқылы зерттеушімен хабарласуыңызға болады:

- негізгі зерттеуші, Суюндикова Гулденмен, +77086166841 телефоны немесе [gulden.suyundikova@nu.edu.kz](mailto:gulden.suyundikova@nu.edu.kz) электрондық поштасы арқылы;
- магистрлік зерттеудің ғылыми жетекшісі, Шаматов Дүйшонмен, + 7 7172 709364 телефоны немесе [duishonkul.shamatov@nu.edu.kz](mailto:duishonkul.shamatov@nu.edu.kz) электрондық поштасы арқылы;
- зерттеу тобынан дербес тұлғамен байланысу үшін Назарбаев университеті Жоғары білім беру мектебінің Зерттеу комитетімен +7 7172 70 93 59 телефоны немесе [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz) электрондық поштасы арқылы.

Зерттеу жұмысына қатысуға келісіміңізді берсеңіз, берілген формаға қол қоюыңызды сұраймыз.

- Мен берілген формамен мұқият таныстым;
- Маған зерттеу жұмысының мақсаты мен оның процедурасы жайында толық ақпарат берілді;
- Жинақталған ақпарат пен құпия мәліметтерге тек зерттеушінің өзіне қолжетімді және мәлім болатынын толық түсінемін;
- Мен кез келген уақытта ешқандай түсініктемесіз зерттеу жұмысына қатысудан бас тартуыма болатынын түсінемін;
- Мен жоғарыда аталып өткен ақпаратты саналы түрде қабылдап, осы зерттеу жұмысына қатысуға өз келісімімді беремін.

Қолы: \_\_\_\_\_

Күні: \_\_\_\_\_

## **Appendix D**

### **Interview guide**

**Research title:** Teachers' attitudes toward updated curriculum in one of the secondary schools in Aktau: implementation and challenges.

#### **Research questions:**

- 1) What are the teachers' perceptions of implementing the updated curriculum?
- 2) What are their attitudes towards the new curriculum?

#### **Interview questions:**

1. How long have you been working as a teacher? How did you become a teacher?
2. What were your perspectives on education and curriculum before the implementation of new curriculum reform?
3. What were your teaching practices before the implementation of new curriculum reform?
4. What do you think about the content of the new curriculum? Aims of it?
5. What are the differences of is curriculum from the previous curriculum?
6. Which curriculum provides better learning outcomes for students?
7. What do you think about criteria-based assessment? Do you think it shows the real knowledge of students?
8. How do you assess your students in the lessons without putting grades?
9. How much time does it take you to plan the lesson? Do you have enough resources to plan your lessons?
10. What are the strengths of the new curriculum? What are the weaknesses?
11. Would you like to change something in your teaching practice? Why?
12. What barriers do you experience in introducing the new curriculum?
13. Do you think that the content of textbooks improved significantly?



### **Сұхбат нұсқаулығы**

**Зерттеу тақырыбы:** Ақтаудағы жалпы білім беретін мектептерінің бірінде жаңартылған оқу бағдарламаласын енгізу бойынша мұғалімдердің көзқарасы

#### **Зерттеу сұрақтары:**

- 1) Мұғалімдер жаңартылған оқу жоспарын жүзеге асыру туралы қандай тұжырымдар қабылдайды?
- 2) Орта мектеп мұғалімдерінің жаңа оқу бағдарламаларына қатысты көзқарасы қандай?

#### **Сұхбат сұрақтары:**

1. Мұғалім болып жұмыс істеп жүргеніңізге қанша уақыт болды? Бұл мамандыққа қалай келдіңіз?
2. Жаңартылған білім беру мазмұны енгізілгенге дейін білім беру және білім беру бағдарламасы жөнінде көз-қарасыңыз қандай болды?
3. Жаңартылған білім беру мазмұны енгізілгенге дейін сіздің тәжірибеңіз (оқыту тәжірибесі) қандай болды?
4. Жаңартылған білім беру мазмұнын енгізудің мақсаттары неде деп ойлайсыз?
5. Жаңартылған оқу бағдарламасының мазмұны жөнінде пікіріңіз қандай?
6. Қандай оқу бағдарламасы оқушылардың жақсы оқу нәтижелерін береді?
7. Критерийлік бағалау туралы не ойлайсыз? Оқушылардың нақты білімін көрсетеді деп ойлайсыз ба?
8. Оқушыларыңызды қалай бағалайсыз?
9. Сабақ жоспарлағы қанша уақытыңыз кетеді? Сабақтарыңызды жоспарлау үшін жеткілікті ресурстарыңыз бар ма?
10. Жаңа оқу бағдарламасының қандай артықшылықтары бар? Кемшіліктері қандай?
11. Оқыту тәжірибеңізді өзгерткіңіз келе ме? Неліктен?
12. Жаңа оқу бағдарламаласын енгізуде қандай кедергілер туындайды?
13. Сіз оқулықтардың мазмұны айтарлықтай жақсарған деп ойлайсыз ба?